

Applications

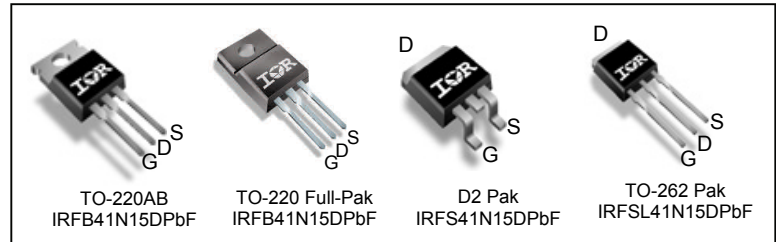
- High frequency DC-DC converters

HEXFET® Power MOSFET

| | |
|-------------------------------|---------------|
| V_{DSS} | 150V |
| R_{DS(on)} max | 0.045Ω |
| I_D | 41A |

Benefits

- Low Gate-to-Drain Charge to Reduce Switching Losses
- Fully Characterized Capacitance Including Effective C_{oss} to Simplify Design, (See App. Note AN1001)
- Fully Characterized Avalanche Voltage and Current
- Lead-Free



| | | |
|----------|----------|----------|
| G | D | S |
| Gate | Drain | Source |

| Base part number | Package Type | Standard Pack | | Orderable Part Number |
|------------------|-----------------|--------------------|----------|-----------------------|
| | | Form | Quantity | |
| IRFB41N15DPbF | TO-220 | Tube | 50 | IRFB41N15DPbF |
| IRFSL41N15DPbF | TO-262 | Tube | 50 | IRFSL41N15DPbF |
| IRFIB41N15DPbF | TO-220 Full-Pak | Tube | 50 | IRFIB41N15DPbF |
| IRFS41N15DPbF | D2-Pak | Tube | 50 | IRFS41N15DPbF |
| | | Tape and Reel Left | 800 | IRFS41N15DTRLpbF |

Absolute Maximum Ratings

| Symbol | Parameter | Max. | Units |
|---|---|--------------------|-------|
| I _D @ T _C = 25°C | Continuous Drain Current, V _{GS} @ 10V | 41 | A |
| I _D @ T _C = 100°C | Continuous Drain Current, V _{GS} @ 10V | 29 | |
| I _{DM} | Pulsed Drain Current ① | 164 | |
| P _D @ T _A = 25°C | Maximum Power Dissipation D2-Pak | 3.1 | W |
| P _D @ T _C = 25°C | Maximum Power Dissipation TO-220 | 200 | |
| P _D @ T _C = 25°C | Maximum Power Dissipation TO-220 Full-Pak | 48 | |
| | Linear Derating Factor TO-220 | 1.3 | W/°C |
| | Linear Derating Factor TO-220 Full-Pak | 0.32 | |
| V _{GS} | Gate-to-Source Voltage | ± 30 | V |
| dv/dt | Peak Diode Recovery dv/dt③ | 2.7 | V/ns |
| T _J T _{STG} | Operating Junction and Storage Temperature Range | -55 to + 175 | °C |
| | Soldering Temperature, for 10 seconds (1.6mm from case) | 300 | |
| | Mounting torque, 6-32 or M3 screw⑥ | 10 lbf•in (1.1N•m) | |

Thermal Resistance

| Symbol | Parameter | Typ. | Max. | Units |
|------------------|---------------------------------------|------|------|-------|
| R _{θJC} | Junction-to-Case | — | 0.75 | °C/W |
| R _{θJC} | Junction-to-Case, TO-220 Full-Pak | — | 3.14 | |
| R _{θCS} | Case-to-Sink, Flat, Greased Surface ⑥ | 0.50 | — | |
| R _{θJA} | Junction-to-Ambient, TO-220 ⑥ | — | 62 | |
| R _{θJA} | Junction-to-Ambient, D2-Pak ⑦ | — | 40 | |
| R _{θJA} | Junction-to-Ambient, TO-220 Full-Pak | — | 65 | |

Static @ T_J = 25°C (unless otherwise specified)

| | Parameter | Min. | Typ. | Max. | Units | Conditions |
|--------------------------------------|--------------------------------------|------|------|-------|-------|--|
| V _{(BR)DSS} | Drain-to-Source Breakdown Voltage | 150 | — | — | V | V _{GS} = 0V, I _D = 250μA |
| ΔV _{(BR)DSS/ΔT_J} | Breakdown Voltage Temp. Coefficient | — | 0.17 | — | V/°C | Reference to 25°C, I _D = 1mA |
| R _{DS(on)} | Static Drain-to-Source On-Resistance | — | — | 0.045 | Ω | V _{GS} = 10V, I _D = 25A ④ |
| V _{GS(th)} | Gate Threshold Voltage | 3.0 | — | 5.5 | V | V _{DS} = V _{GS} , I _D = 250μA |
| I _{DSS} | Drain-to-Source Leakage Current | — | — | 25 | μA | V _{DS} = 150V, V _{GS} = 0V |
| | | — | — | 250 | | V _{DS} = 120V, V _{GS} = 0V, T _J = 150°C |
| I _{GSS} | Gate-to-Source Forward Leakage | — | — | 100 | nA | V _{GS} = 30V |
| | Gate-to-Source Reverse Leakage | — | — | -100 | | V _{GS} = -30V |

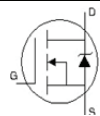
Dynamic @ T_J = 25°C (unless otherwise specified)

| | | | | | | |
|-----------------------|------------------------------|----|------|-----|----|---|
| g _{fs} | Forward Trans conductance | 18 | — | — | S | V _{DS} = 50V, I _D = 25A |
| Q _g | Total Gate Charge | — | 72 | 110 | nC | I _D = 25A |
| Q _{gs} | Gate-to-Source Charge | — | 21 | 31 | | V _{DS} = 120V |
| Q _{gd} | Gate-to-Drain Charge | — | 35 | 52 | | V _{GS} = 10V ④ |
| t _{d(on)} | Turn-On Delay Time | — | 16 | — | ns | V _{DD} = 75V |
| t _r | Rise Time | — | 63 | — | | I _D = 25A |
| t _{d(off)} | Turn-Off Delay Time | — | 25 | — | | R _G = 2.5Ω |
| t _f | Fall Time | — | 14 | — | | V _{GS} = 10V ④ |
| C _{iss} | Input Capacitance | — | 2520 | — | pF | V _{GS} = 0V |
| C _{oss} | Output Capacitance | — | 510 | — | | V _{DS} = 25V |
| C _{riss} | Reverse Transfer Capacitance | — | 110 | — | | f = 1.0MHz |
| C _{oss} | Output Capacitance | — | 3090 | — | | V _{GS} = 0V, V _{DS} = 1.0V f = 1.0MHz |
| C _{oss} | Output Capacitance | — | 230 | — | | V _{GS} = 0V, V _{DS} = 120V f = 1.0MHz |
| C _{oss eff.} | Effective Output Capacitance | — | 250 | — | | V _{GS} = 0V, V _{DS} = 0V to 120V ⑤ |

Avalanche Characteristics

| | Parameter | Typ. | Max. | Units |
|-----------------|---------------------------------|------|------|-------|
| E _{AS} | Single Pulse Avalanche Energy ② | — | 470 | mJ |
| I _{AR} | Avalanche Current ① | — | 25 | A |
| E _{AR} | Repetitive Avalanche Energy ① | — | 20 | mJ |

Diode Characteristics

| | Parameter | Min. | Typ. | Max. | Units | Conditions |
|-----------------|--|--|------|------|-------|--|
| I _S | Continuous Source Current (Body Diode) | — | — | 41 | A | MOSFET symbol showing the integral reverse p-n junction diode.  |
| I _{SM} | Pulsed Source Current (Body Diode) ① | — | — | 164 | | |
| V _{SD} | Diode Forward Voltage | — | — | 1.3 | V | T _J = 25°C, I _S = 25A, V _{GS} = 0V ④ |
| t _{rr} | Reverse Recovery Time | — | 170 | 260 | ns | T _J = 25°C, I _F = 25A |
| Q _{rr} | Reverse Recovery Charge | — | 1.3 | 1.9 | μC | di/dt = 100A/μs ④ |
| t _{on} | Forward Turn-On Time | Intrinsic turn-on time is negligible (turn-on is dominated by L _S +L _D) | | | | |

Notes:

- ① Repetitive rating; pulse width limited by max. junction temperature.
- ② starting T_J = 25°C, L = 1.5mH, R_G = 25Ω, I_{AS} = 25A.
- ③ I_{SD} ≤ 25A, di/dt ≤ 340A/μs, V_{DD} ≤ V_{(BR)DSS}, T_J ≤ 175°C.
- ④ Pulse width ≤ 300μs; duty cycle ≤ 2%.
- ⑤ C_{oss eff.} is a fixed capacitance that gives the same charging time as C_{oss} while V_{DS} is rising from 0 to 80% V_{DSS}.
- ⑥ This is only applied to TO-220AB package.
- ⑦ This is applied to D²Pak, when mounted on 1" square PCB (FR-4 or G-10 Material). For recommended footprint and soldering techniques refer to application note #AN-994.

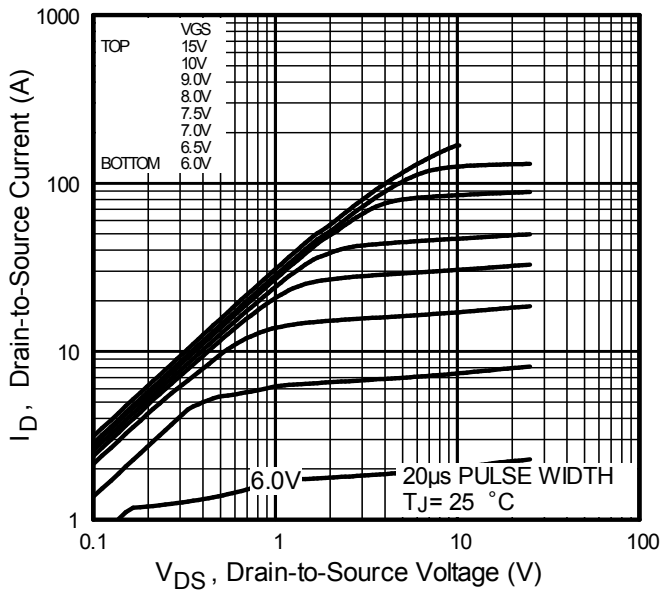


Fig. 1 Typical Output Characteristics

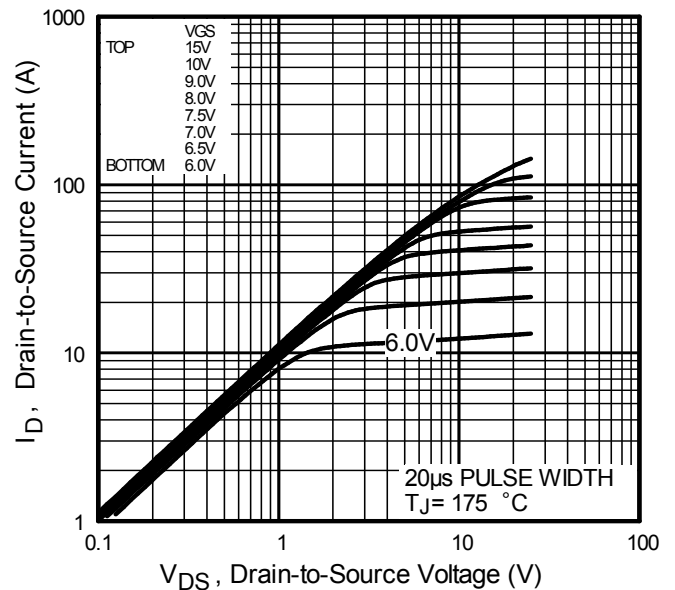


Fig. 2 Typical Output Characteristics

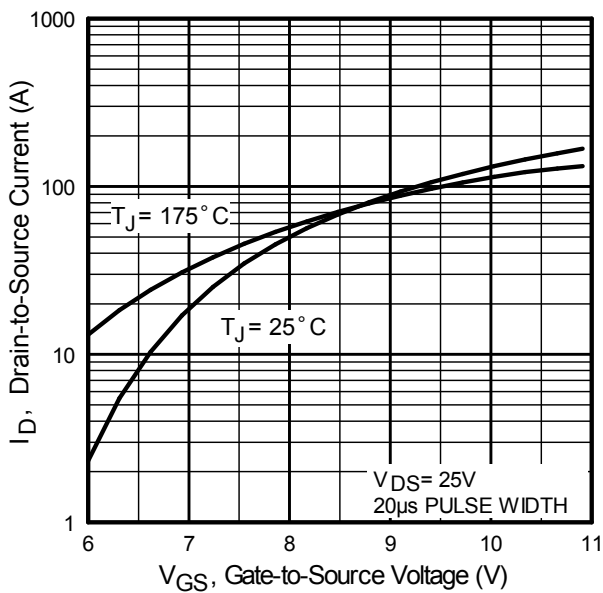


Fig. 3 Typical Transfer Characteristics

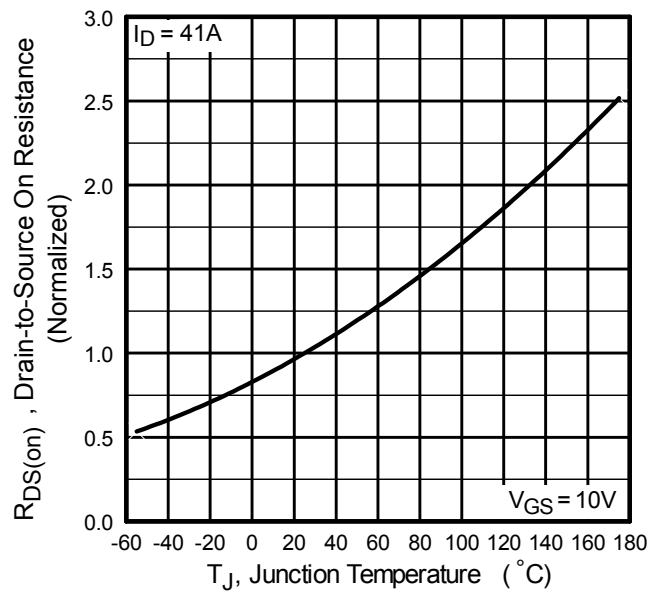


Fig. 4 Normalized On-Resistance vs. Temperature

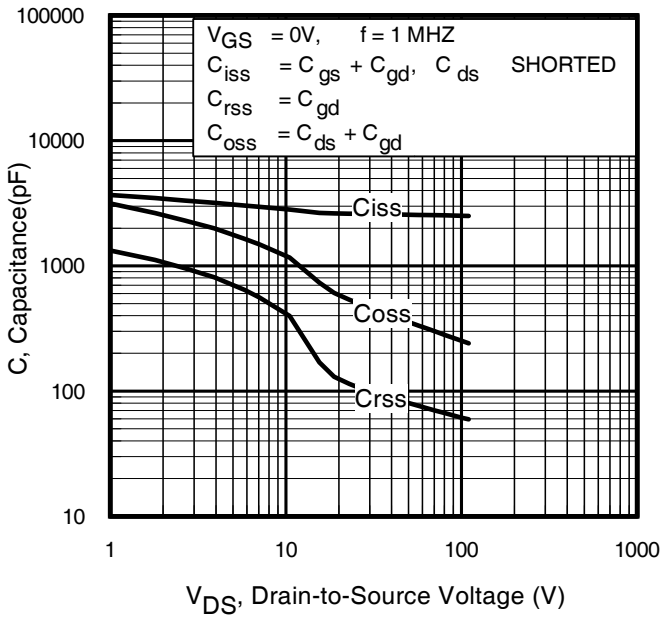


Fig 5. Typical Capacitance vs. Drain-to-Source Voltage

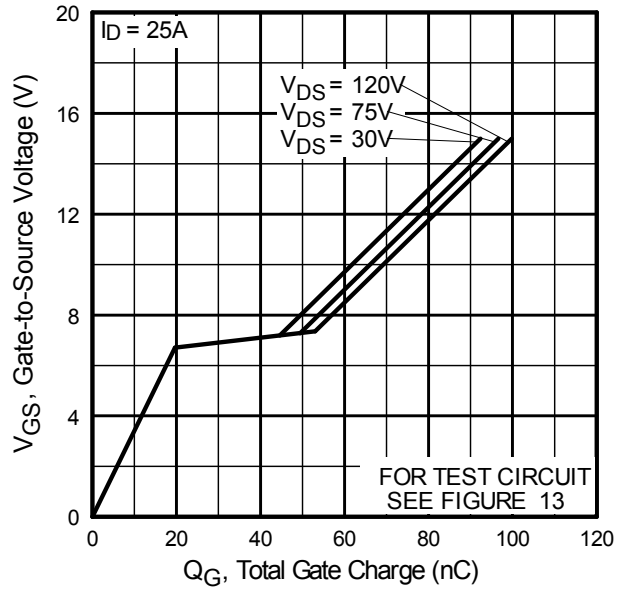


Fig 6. Typical Gate Charge vs. Gate-to-Source Voltage

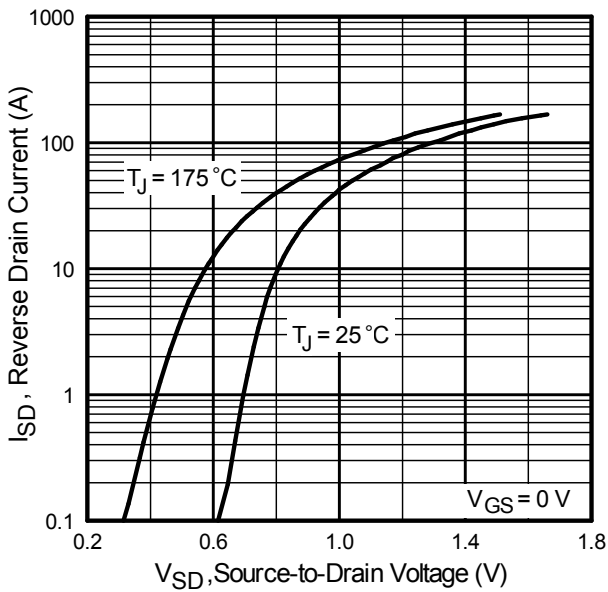


Fig. 7 Typical Source-to-Drain Diode Forward Voltage

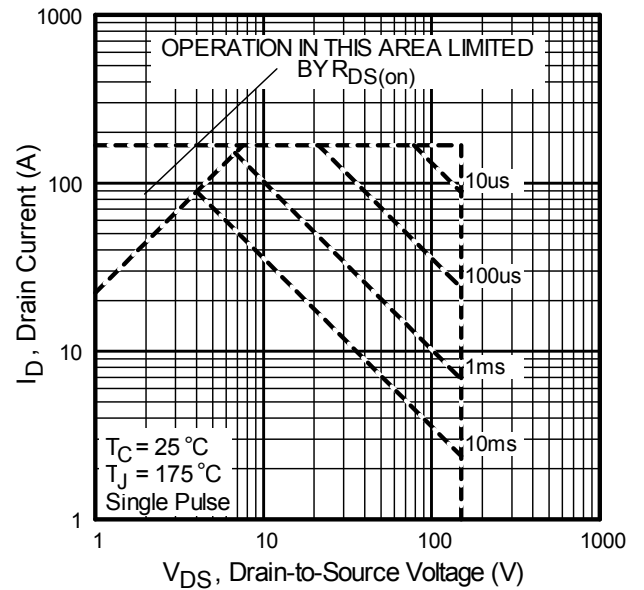


Fig 8. Maximum Safe Operating Area

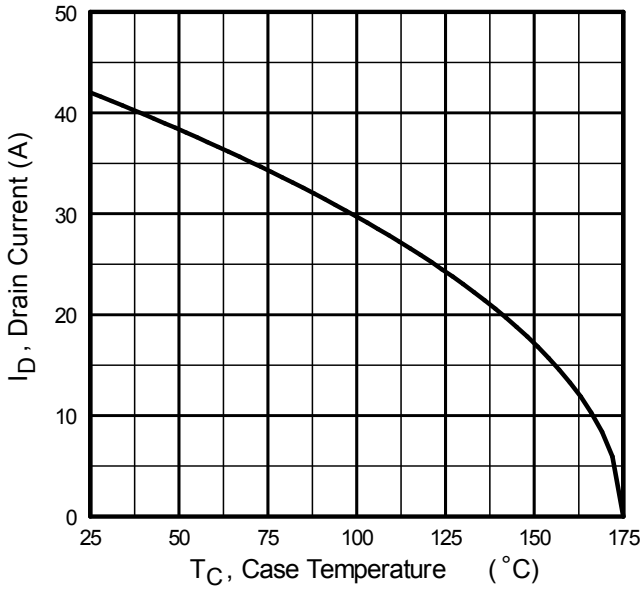


Fig 9. Maximum Drain Current vs. Case Temperature

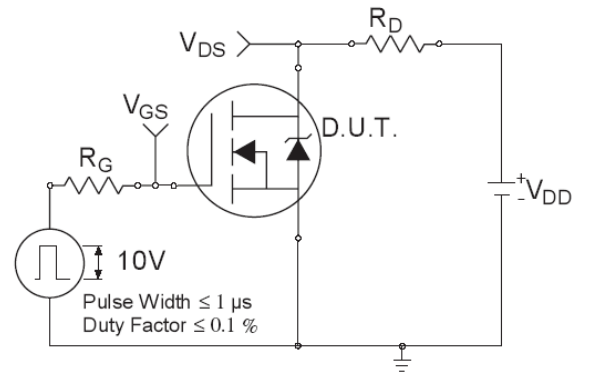


Fig 10a. Switching Time Test Circuit

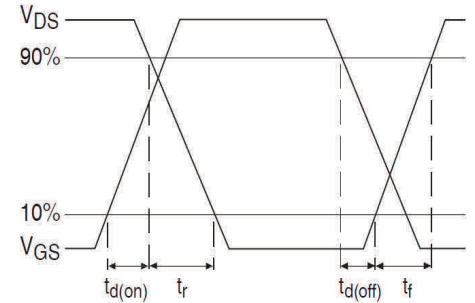


Fig 10b. Switching Time Waveforms

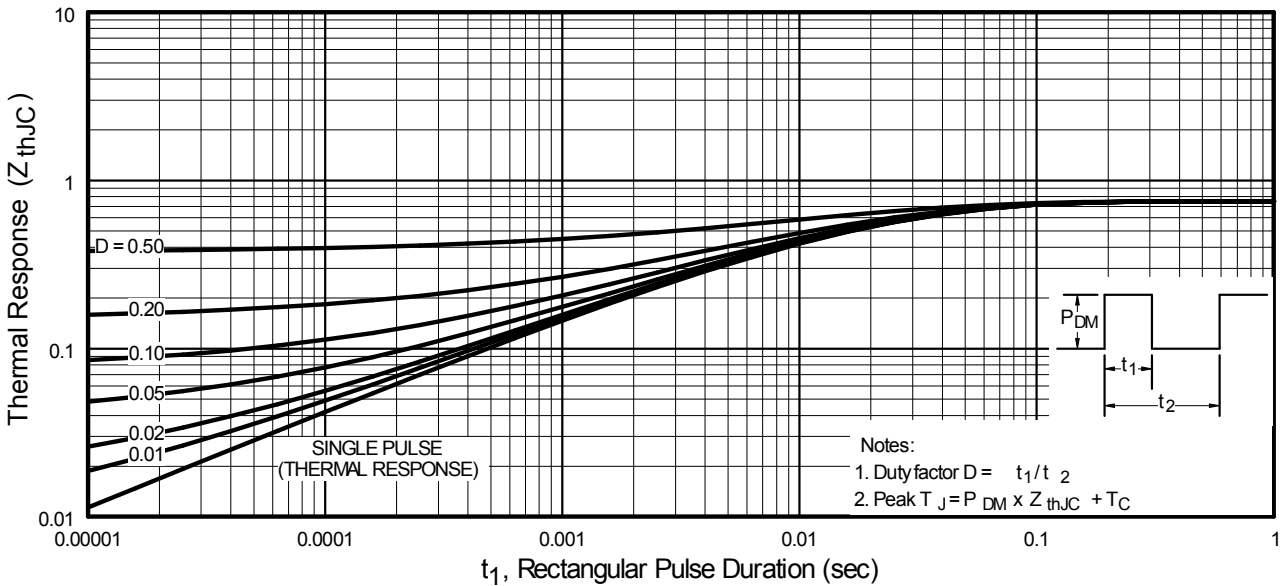


Fig 11. Maximum Effective Transient Thermal Impedance, Junction-to-Case

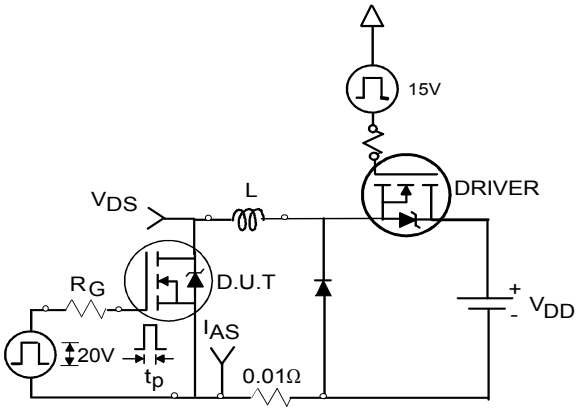


Fig 12a. Unclamped Inductive Test Circuit

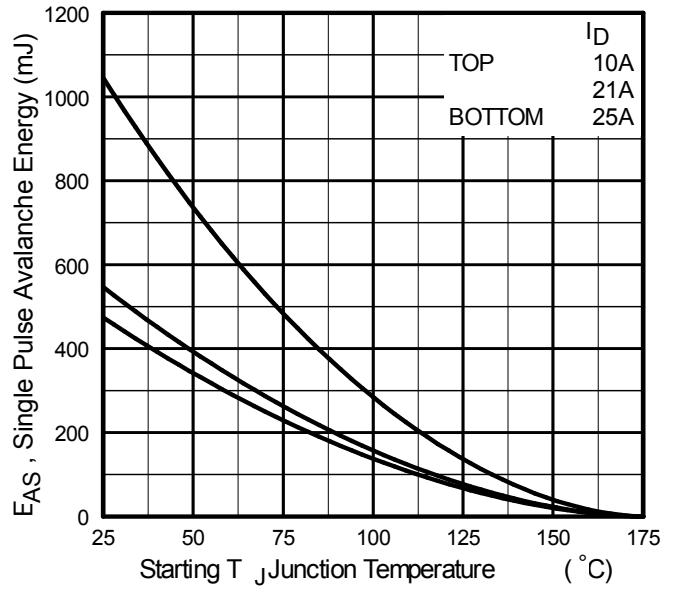


Fig 12c. Maximum Avalanche Energy vs. Drain Current

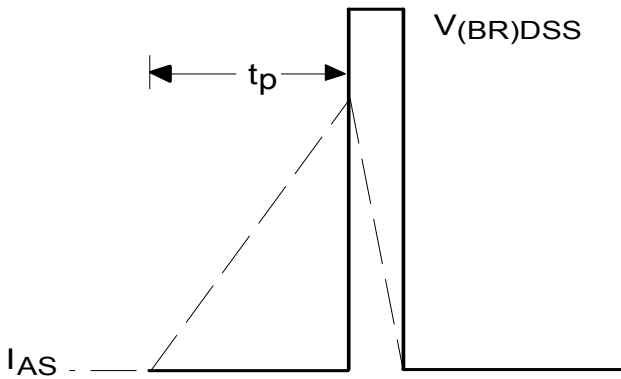


Fig 12b. Unclamped Inductive Waveforms

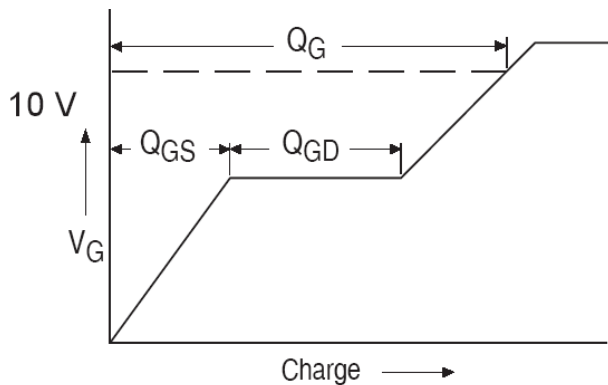


Fig 13a. Gate Charge Waveform

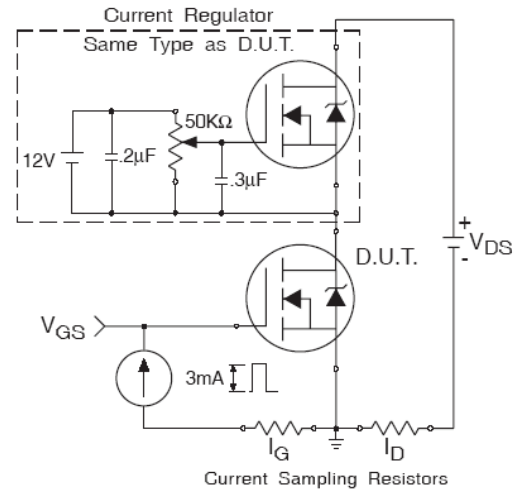
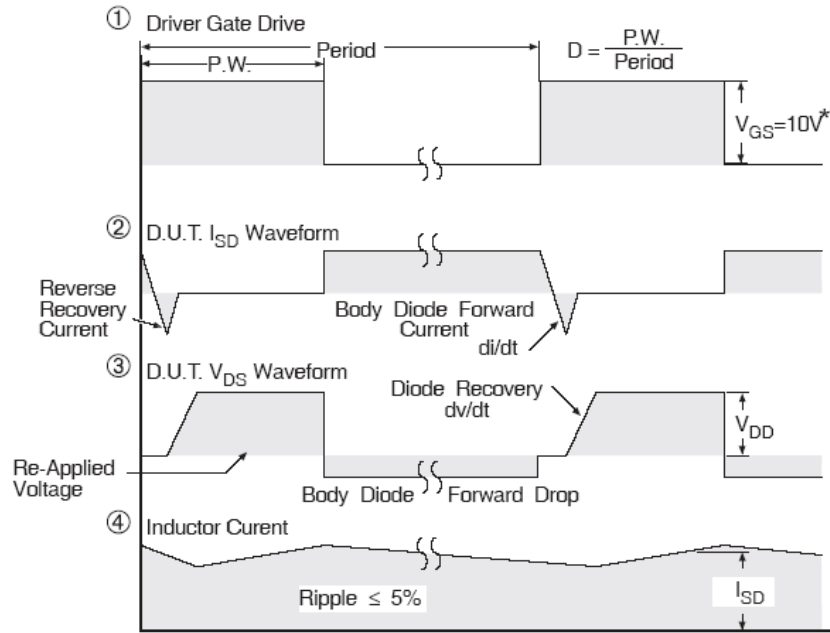
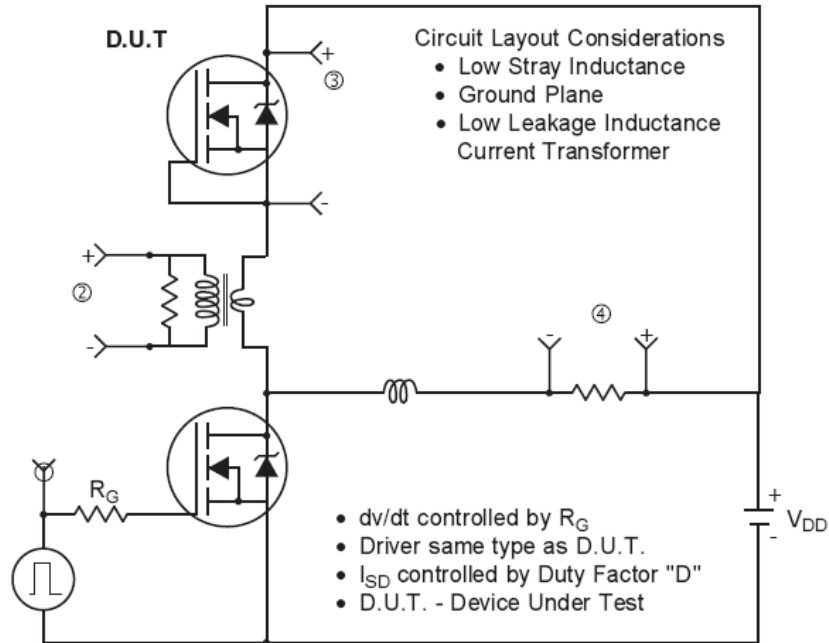


Fig 13b. Gate Charge Test Circuit

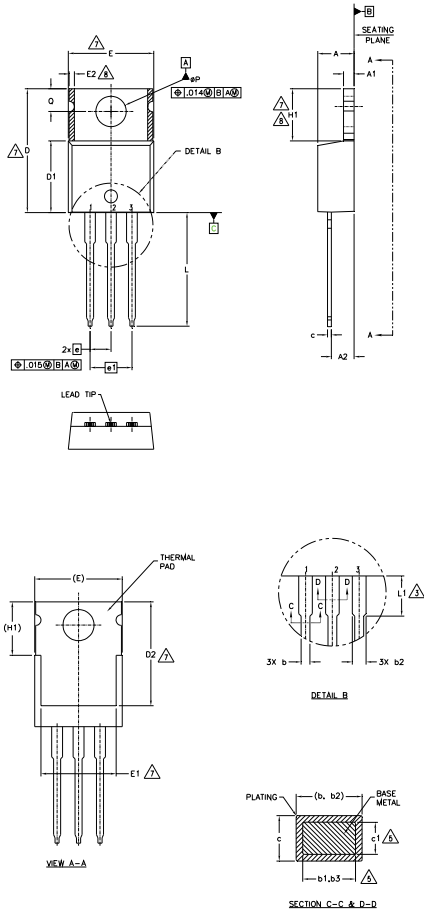
Peak Diode Recovery dv/dt Test Circuit



* $V_{GS} = 5V$ for Logic Level Devices

Fig 14. Peak Diode Recovery dv/dt Test Circuit for N-Channel HEXFET® Power MOSFETs

TO-220AB Package Outline (Dimensions are shown in millimeters (inches))



- NOTES:
- 1.- DIMENSIONING AND TOLERANCING AS PER ASME Y14.5 M- 1994.
 - 2.- DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS].
 - 3.- LEAD DIMENSION AND FINISH UNCONTROLLED IN L1.
 - 4.- DIMENSION D, D1 & E DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED .005" (0.127) PER SIDE. THESE DIMENSIONS ARE MEASURED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY.
 - 5.- DIMENSION b1, b3 & c1 APPLY TO BASE METAL ONLY.
 - 6.- CONTROLLING DIMENSION : INCHES.
 - 7.- THERMAL PAD CONTOUR OPTIONAL WITHIN DIMENSIONS E,H1,D2 & E1
 - 8.- DIMENSION E2 X H1 DEFINE A ZONE WHERE STAMPING AND SINGULATION IRREGULARITIES ARE ALLOWED.
 - 9.- OUTLINE CONFORMS TO JEDEC TO-220, EXCEPT A2 (max.) AND D2 (min.) WHERE DIMENSIONS ARE DERIVED FROM THE ACTUAL PACKAGE OUTLINE.

| SYMBOL | DIMENSIONS | | | | NOTES |
|--------|-------------|-------|---------|------|-------|
| | MILLIMETERS | | INCHES | | |
| | MIN. | MAX. | MIN. | MAX. | |
| A | 3.56 | 4.83 | .140 | .190 | |
| A1 | 1.14 | 1.40 | .045 | .055 | |
| A2 | 2.03 | 2.92 | .080 | .115 | |
| b | 0.38 | 1.01 | .015 | .040 | |
| b1 | 0.38 | 0.97 | .015 | .038 | 5 |
| b2 | 1.14 | 1.78 | .045 | .070 | |
| b3 | 1.14 | 1.73 | .045 | .068 | 5 |
| c | 0.36 | 0.61 | .014 | .024 | |
| c1 | 0.36 | 0.56 | .014 | .022 | 5 |
| D | 14.22 | 16.51 | .560 | .650 | 4 |
| D1 | 8.38 | 9.02 | .330 | .355 | |
| D2 | 11.68 | 12.88 | .460 | .507 | 7 |
| E | 9.65 | 10.67 | .380 | .420 | 4,7 |
| E1 | 6.86 | 8.89 | .270 | .350 | 7 |
| E2 | - | 0.76 | - | .030 | 8 |
| e | 2.54 BSC | | 100 BSC | | |
| e1 | 5.08 BSC | | 200 BSC | | |
| H1 | 5.84 | 6.86 | .230 | .270 | 7,8 |
| L | 12.70 | 14.73 | .500 | .580 | |
| L1 | 3.56 | 4.06 | .140 | .160 | 3 |
| øP | 3.54 | 4.08 | .139 | .161 | |
| Q | 2.54 | 3.42 | .100 | .135 | |

LEAD ASSIGNMENTS

- HEMFEET**
- 1.- GATE
 - 2.- DRAIN
 - 3.- SOURCE

IGBTs, CoPACK

- 1.- GATE
- 2.- COLLECTOR
- 3.- EMITTER

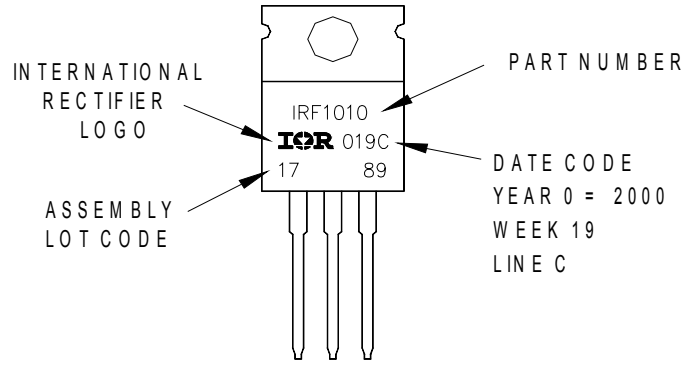
DIODES

- 1.- ANODE
- 2.- CATHODE
- 3.- ANODE

TO-220AB Part Marking Information

EXAMPLE: THIS IS AN IRF1010
 LOT CODE 1789
 ASSEMBLED ON WW 19, 2000
 IN THE ASSEMBLY LINE "C"

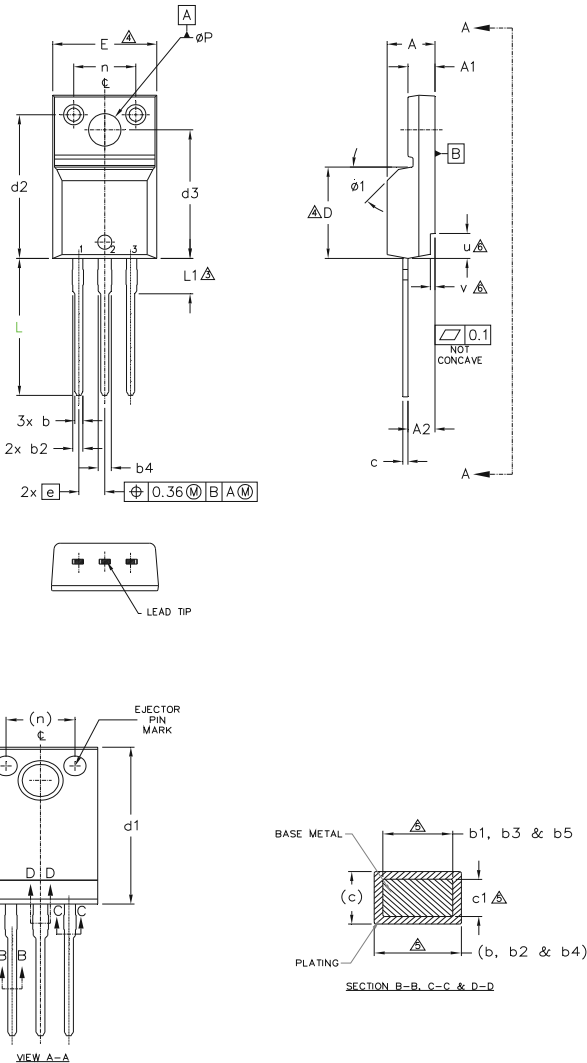
Note: "P" in assembly line position indicates "Lead - Free"



TO-220AB packages are not recommended for Surface Mount Application.

Note: For the most current drawing please refer to website at <http://www.irf.com/package/>

TO-220 Full-Pak Package Outline (Dimensions are shown in millimeters (inches))



NOTES:

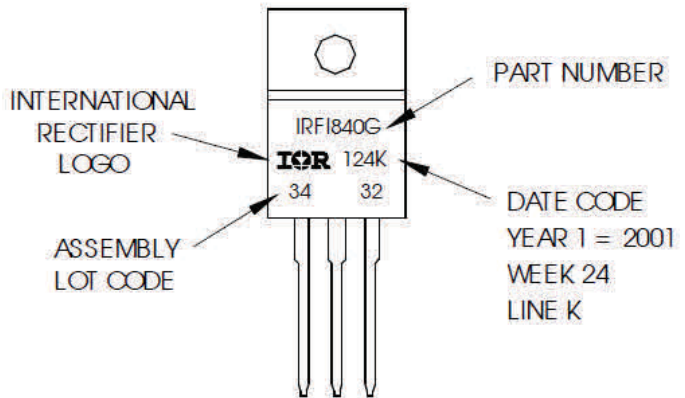
- 1.0 DIMENSIONING AND TOLERANCING AS PER ASME Y14.5 M- 1994.
- 2.0 DIMENSIONS ARE SHOWN IN MILLIMETERS [INCHES].
- 3.0 LEAD DIMENSION AND FINISH UNCONTROLLED IN L1.
- 4.0 DIMENSION D & E DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED .005" (0.127) PER SIDE. THESE DIMENSIONS ARE MEASURED AT THE OUTER MOST EXTREMES OF THE PLASTIC BODY.
- 5.0 DIMENSION b1, b3, b5 & c1 APPLY TO BASE METAL ONLY.
- 6.0 STEP OPTIONAL ON PLASTIC BODY DEFINED BY DIMENSIONS u & v.
- 7.0 CONTROLLING DIMENSION : INCHES.

| SYMBOL | DIMENSIONS | | | | NOTES |
|--------|-------------|-------|----------|------|---|
| | MILLIMETERS | | INCHES | | |
| | MIN. | MAX. | MIN. | MAX. | |
| A | 4.57 | 4.83 | .180 | .190 | LEAD ASSIGNMENTS HEXFET 1.- GATE 2.- DRAIN 3.- SOURCE |
| A1 | 2.57 | 2.82 | .101 | .111 | |
| A2 | 2.51 | 2.92 | .099 | .115 | |
| b | 0.61 | 0.94 | .024 | .037 | |
| b1 | 0.61 | 0.89 | .024 | .035 | |
| b2 | 0.76 | 1.27 | .030 | .050 | |
| b3 | 0.76 | 1.22 | .030 | .048 | |
| b4 | 1.02 | 1.52 | .040 | .060 | |
| b5 | 1.02 | 1.47 | .040 | .058 | |
| c | 0.33 | 0.63 | .013 | .025 | |
| c1 | 0.33 | 0.58 | .013 | .023 | 5 |
| D | 8.66 | 9.80 | .341 | .386 | 4 |
| d1 | 15.80 | 16.13 | .622 | .635 | IGBTs, CoPACK 1.- GATE 2.- COLLECTOR 3.- EMITTER |
| d2 | 13.97 | 14.22 | .550 | .560 | |
| d3 | 12.29 | 12.93 | .484 | .509 | |
| E | 9.63 | 10.74 | .379 | .423 | |
| e | 2.54 BSC | | .100 BSC | | |
| L | 13.21 | 13.72 | .520 | .540 | 3 |
| L1 | 3.10 | 3.68 | .122 | .145 | |
| n | 6.05 | 6.60 | .238 | .260 | 6 |
| phi P | 3.05 | 3.45 | .120 | .136 | |
| u | 2.39 | 2.49 | .094 | .098 | 6 |
| v | 0.41 | 0.51 | .016 | .020 | |
| phi 1 | - | 45° | - | 45° | |

TO-220 Full-Pak Part Marking Information

EXAMPLE: THIS IS AN IRF1840G
WITH ASSEMBLY
LOT CODE 3432
ASSEMBLED ON WW 24, 2001
IN THE ASSEMBLY LINE "K"

Note: "P" in assembly line position
indicates "Lead-Free"

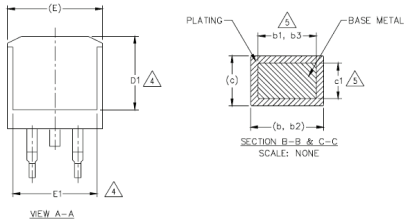
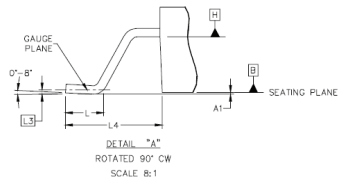
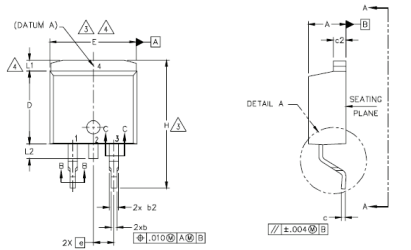


TO-220AB Full-Pak packages are not recommended for Surface Mount Application.

Note: For the most current drawing please refer to website at <http://www.irf.com/package/>

D2-Pak (TO-263AB) Package Outline
 shown in millimeters (inches)

(Dimensions are



NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994
2. DIMENSIONS ARE SHOWN IN MILLIMETERS [INCHES].
3. DIMENSION D & E DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED 0.127 [0.005"] PER SIDE. THESE DIMENSIONS ARE MEASURED AT THE OUTMOST EXTREMES OF THE PLASTIC BODY AT DATUM H.
4. THERMAL PAD CONTOUR OPTIONAL WITHIN DIMENSION E, L1, D1 & E1.
5. DIMENSION b1 AND c1 APPLY TO BASE METAL ONLY.
6. DATUM A & B TO BE DETERMINED AT DATUM PLANE H.
7. CONTROLLING DIMENSION: INCH.
8. OUTLINE CONFORMS TO JEDEC OUTLINE TO-263AB.

| SYMBOL | DIMENSIONS | | | | NOTES |
|--------|-------------|-------|----------|------|-------|
| | MILLIMETERS | | INCHES | | |
| | MIN. | MAX. | MIN. | MAX. | |
| A | 4.06 | 4.83 | .160 | .190 | |
| A1 | 0.00 | 0.254 | .000 | .010 | |
| b | 0.51 | 0.99 | .020 | .039 | |
| b1 | 0.51 | 0.89 | .020 | .035 | 5 |
| b2 | 1.14 | 1.78 | .045 | .070 | |
| b3 | 1.14 | 1.73 | .045 | .068 | 5 |
| c | 0.38 | 0.74 | .015 | .029 | |
| c1 | 0.38 | 0.58 | .015 | .023 | 5 |
| c2 | 1.14 | 1.65 | .045 | .065 | |
| D | 8.38 | 9.65 | .330 | .380 | 3 |
| D1 | 6.86 | - | .270 | - | 4 |
| E | 9.65 | 10.67 | .380 | .420 | 3,4 |
| E1 | 6.22 | - | .245 | - | 4 |
| e | 2.54 BSC | | .100 BSC | | |
| H | 14.61 | 15.88 | .575 | .625 | |
| L | 1.78 | 2.79 | .070 | .110 | |
| L1 | - | 1.65 | - | .066 | 4 |
| L2 | - | 1.78 | - | .070 | |
| L3 | 0.25 BSC | | .010 BSC | | |
| L4 | 4.78 | 5.28 | .188 | .208 | |

LEAD ASSIGNMENTS

DIODES

- 1.- ANODE (TWO DIE) / OPEN (ONE DIE)
- 2, 4.- CATHODE
- 3.- ANODE

HEXFET

- 1.- GATE
- 2, 4.- DRAIN
- 3.- SOURCE

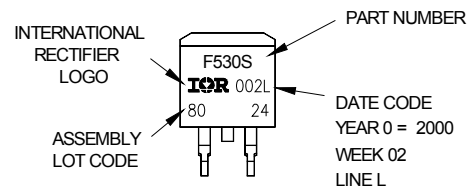
IGBTs, CoPACK

- 1.- GATE
- 2, 4.- COLLECTOR
- 3.- EMITTER

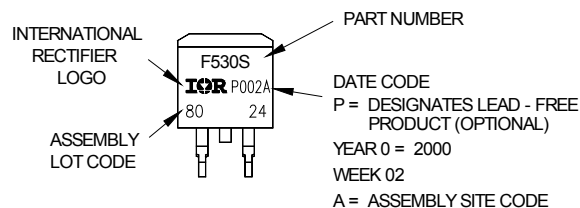
D2-Pak (TO-263AB) Part Marking Information

EXAMPLE: THIS IS AN IRF530S WITH
 LOT CODE 8024
 ASSEMBLED ON WW 02, 2000
 IN THE ASSEMBLY LINE "L"

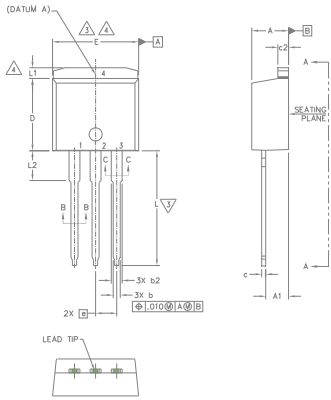
Note: "P" in assembly line position
 indicates "Lead - Free"



OR



Note: For the most current drawing please refer to website at <http://www.irf.com/package/>

TO-262 Package Outline (Dimensions are shown in millimeters (inches))


- NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994
 2. DIMENSIONS ARE SHOWN IN MILLIMETERS [INCHES].
 3. DIMENSION D & E DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED 0.127 [.005"] PER SIDE. THESE DIMENSIONS ARE MEASURED AT THE OUTMOST EXTREMES OF THE PLASTIC BODY.
 4. THERMAL PAD CONTOUR OPTIONAL WITHIN DIMENSION E, L1, D1 & E1.
 5. DIMENSION b1 AND c1 APPLY TO BASE METAL ONLY.
 6. CONTROLLING DIMENSION: INCH.
 7. OUTLINE CONFORM TO JEDEC TO-262 EXCEPT A1(max.), b(min.) AND D1(min.) WHERE DIMENSIONS DERIVED THE ACTUAL PACKAGE OUTLINE.

LEAD ASSIGNMENTS
IGBTs, CoPACK

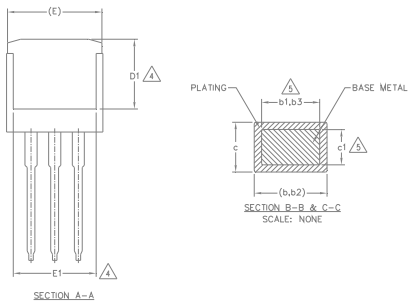
- 1.- GATE
- 2.- COLLECTOR
- 3.- EMITTER
- 4.- COLLECTOR

HEXFET

- 1.- GATE
- 2.- DRAIN
- 3.- SOURCE
- 4.- DRAIN

DIODES

- 1.- ANODE (TWO DIE) / OPEN (ONE DIE)
- 2, 4.- CATHODE
- 3.- ANODE

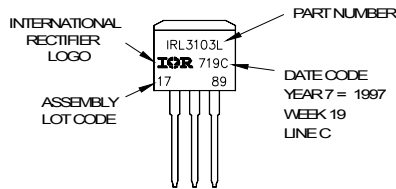


| SYMBOL | DIMENSIONS | | | | NOTES |
|--------|-------------|-------|----------|------|-------|
| | MILLIMETERS | | INCHES | | |
| | MIN. | MAX. | MIN. | MAX. | |
| A | 4.06 | 4.83 | .160 | .190 | |
| A1 | 2.03 | 3.02 | .080 | .119 | |
| b | 0.51 | 0.99 | .020 | .039 | |
| b1 | 0.51 | 0.89 | .020 | .035 | 5 |
| b2 | 1.14 | 1.78 | .045 | .070 | |
| b3 | 1.14 | 1.73 | .045 | .068 | 5 |
| c | 0.38 | 0.74 | .015 | .029 | |
| c1 | 0.38 | 0.58 | .015 | .023 | 5 |
| c2 | 1.14 | 1.65 | .045 | .065 | |
| D | 8.38 | 9.65 | .330 | .380 | 3 |
| D1 | 6.86 | - | .270 | - | 4 |
| E | 9.65 | 10.67 | .380 | .420 | 3,4 |
| E1 | 6.22 | - | .245 | - | 4 |
| e | 2.54 BSC | | .100 BSC | | |
| L | 13.46 | 14.10 | .530 | .555 | |
| L1 | - | 1.65 | - | .065 | 4 |
| L2 | 3.56 | 3.71 | .140 | .146 | |

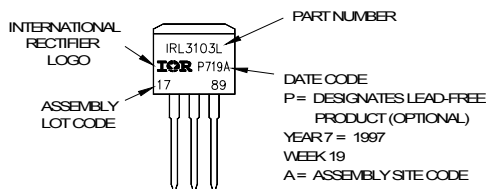
TO-262 Part Marking Information

EXAMPLE: THIS IS AN IRL3103L
 LOT CODE 1789
 ASSEMBLED ON WW19, 1997
 IN THE ASSEMBLY LINE "C"

Note: "P" in assembly line position indicates "Lead - Free"

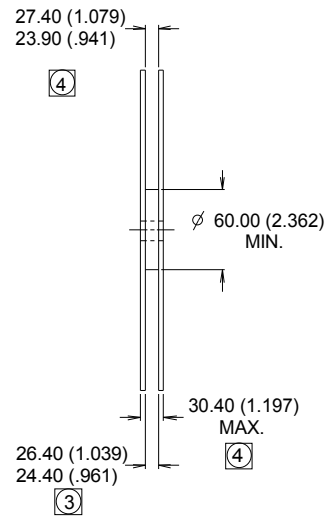
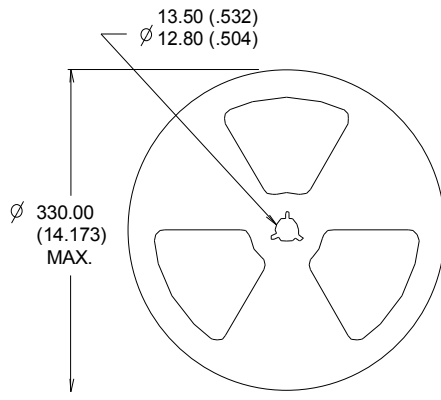
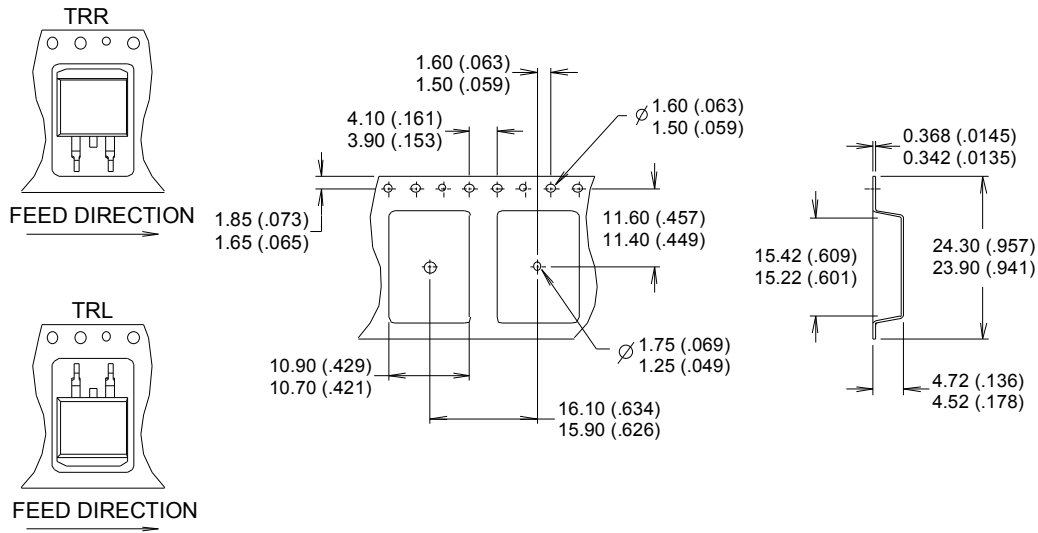


OR



Note: For the most current drawing please refer to website at <http://www.irf.com/package/>

D2-Pak (TO-263AB) Tape & Reel Information (Dimensions are shown in millimeters (inches))



- NOTES :
1. CONFORMS TO EIA-418.
 2. CONTROLLING DIMENSION: MILLIMETER.
 3. DIMENSION MEASURED @ HUB.
 4. INCLUDES FLANGE DISTORTION @ OUTER EDGE.

Note: For the most current drawing please refer to IR website at <http://www.irf.com/package/>

Qualification Information

| | | |
|-----------------------------------|-------------------------------------|-----------------------------------|
| Qualification Level | Industrial (per JEDEC JESD47F) † | |
| Moisture Sensitivity Level | TO-220AB | N/A |
| | TO-220 Full-Pak | |
| | TO-262 | |
| | D2-Pak | MSL1 (per JEDEC J-STD-020D) †† |
| RoHS Compliant | Yes | |

† Applicable version of JEDEC standard at the time of product release.

Revision History

| Date | Comments |
|------------|---|
| 04/27/2017 | <ul style="list-style-type: none"> Changed datasheet with Infineon logo - all pages. Corrected Package Outline on page 8,9,10,11. Added disclaimer on last page. |

Trademarks of Infineon Technologies AG

µHVIC™, µIPM™, µPFC™, AU-ConvertIR™, AURIX™, C166™, CanPAK™, CIPOS™, CIPURSE™, CoolDP™, CoolGaN™, COOLiR™, CoolMOST™, CoolSET™, CoolSiC™, DAVE™, DI-POL™, DirectFET™, DrBlade™, EasyPIM™, EconoBRIDGE™, EconoDUAL™, EconoPACK™, EconoPIM™, EiceDRIVER™, eupec™, FCOS™, GaNpowIR™, HEXFET™, HITFET™, HybridPACK™, iMOTION™, IRAM™, ISOFACE™, IsoPACK™, LEDrivIR™, LITIX™, MIPAQ™, ModSTACK™, my-d™, NovalithIC™, OPTIGA™, OptiMOST™, ORIGA™, PowIRaudio™, PowIRStage™, PrimePACK™, PrimeSTACK™, PROFET™, PRO-SiL™, RASiC™, REAL3™, SmartLEWIS™, SOLID FLASH™, SPOC™, StrongIRFET™, SupIRBuck™, TEMPFET™, TRENCHSTOP™, TriCore™, UHVIC™, XHP™, XMC™

Trademarks updated November 2015

Other Trademarks

All referenced product or service names and trademarks are the property of their respective owners.

| | | |
|---|--|--|
| <p>Edition 2016-04-19 Published by Infineon Technologies AG 81726 Munich, Germany</p> <p>© 2016 Infineon Technologies AG. All Rights Reserved.</p> <p>Do you have a question about this document? Email: erratum@infineon.com</p> <p>Document reference ifx1</p> | <p>IMPORTANT NOTICE The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffheitsgarantie").</p> <p>With respect to any examples, hints or any typical values stated herein and/or any information regarding the application of the product, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.</p> <p>In addition, any information given in this document is subject to customer's compliance with its obligations stated in this document and any applicable legal requirements, norms and standards concerning customer's products and any use of the product of Infineon Technologies in customer's applications.</p> <p>The data contained in this document is exclusively intended for technically trained staff. It is the responsibility of customer's technical departments to evaluate the suitability of the product for the intended application and the completeness of the product information given in this document with respect to such application.</p> | <p>For further information on the product, technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies office (www.infineon.com).</p> <p>Please note that this product is not qualified according to the AEC Q100 or AEC Q101 documents of the Automotive Electronics Council.</p> <p>WARNINGS Due to technical requirements products may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies office.</p> <p>Except as otherwise explicitly approved by Infineon Technologies in a written document signed by authorized representatives of Infineon Technologies, Infineon Technologies' products may not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury.</p> |
|---|--|--|