

1N5400 - 1N5408

Features

- 3.0 ampere operation at $T_A = 75^\circ\text{C}$ with no thermal runaway.
- High current capability.
- Low leakage.



DO-201AD
COLOR BAND DENOTES CATHODE

3.0 Ampere General Purpose Rectifiers

Absolute Maximum Ratings* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$I_{F(AV)}$	Average Rectified Current .375 " lead length @ $T_A = 75^\circ\text{C}$	3.0	A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	200	A
P_D	Total Device Dissipation Derate above 25°C	6.25 50	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	20	$^\circ\text{C}/\text{W}$
T_{stg}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150	$^\circ\text{C}$

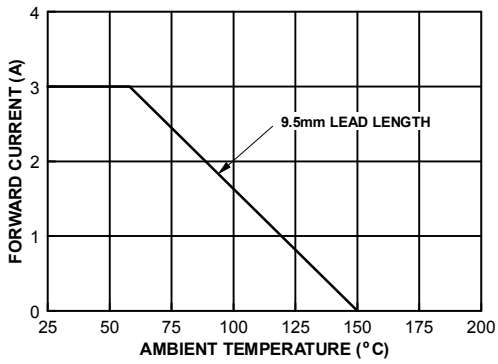
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

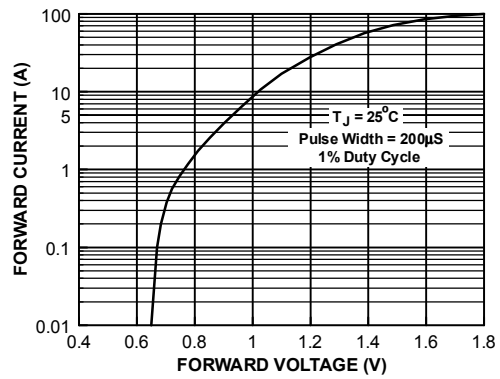
Symbol	Parameter	Device										Units
		5400	5401	5402	5403	5404	5405	5406	5407	5408		
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	300	400	500	600	800	1000	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	210	280	350	420	560	700	V	
V_R	DC Reverse Voltage (Rated V_R)	50	100	200	300	400	500	600	800	1000	V	
I_{RM}	Maximum Instantaneous Reverse Current @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0 500										μA μA
V_{FM}	Maximum Instantaneous Forward Voltage @ 3.0 A	1.2										V
I_{rr}	Maximum Full Load Reverse Current, Full Cycle $T_A = 105^\circ\text{C}$	0.5										mA
C	Typical Junction Capacitance $V_R = 4.0\text{ V}$, $f = 1.0\text{ MHz}$	30										pF

Typical Characteristics

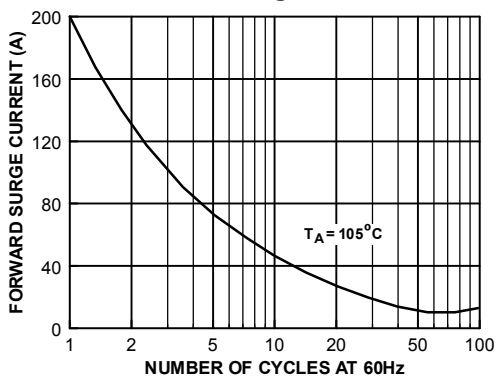
Forward Current Derating Curve



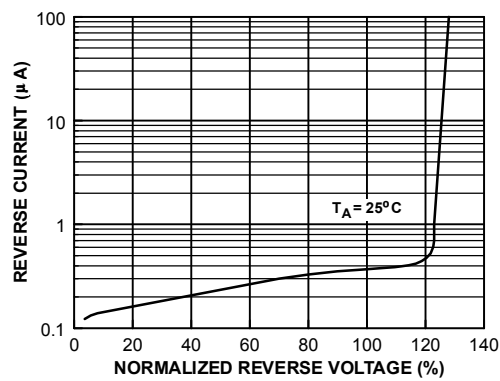
Forward Characteristics



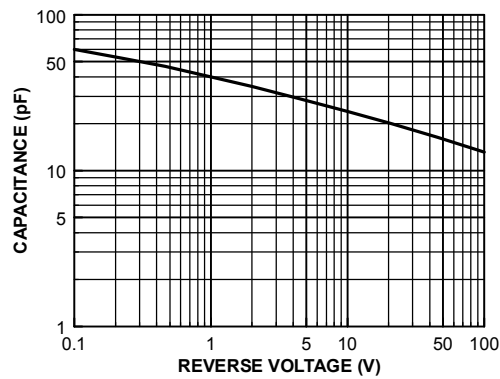
Overload Surge Current



Reverse Characteristics



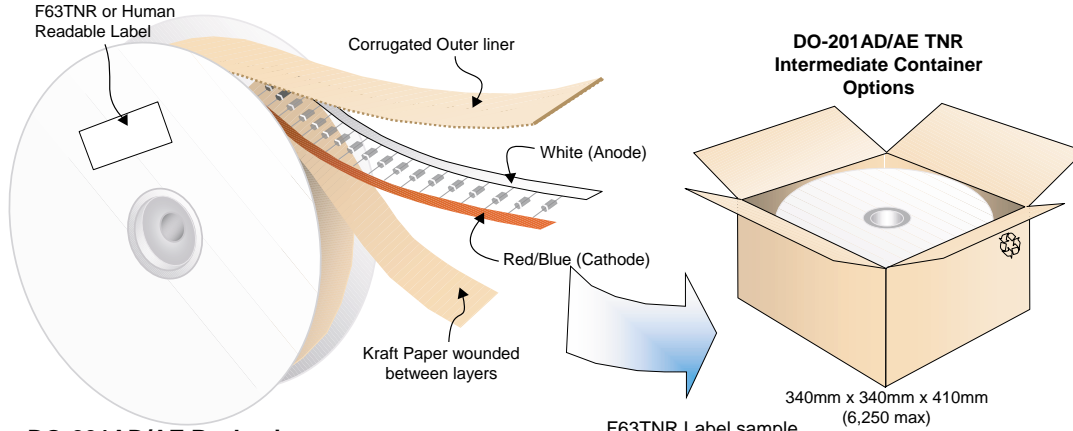
Junction Capacitance



DO-201AD/AE Tape and Reel Data



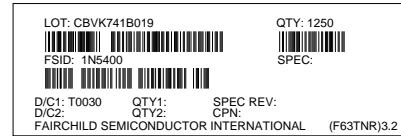
DO-201AD/AE Packaging Configuration: Figure 1.0



DO-201AD/AE Packaging Information Table : Figure 2.0

DO-201AD/AE Packaging Information	
Packaging Option	Under package code P3
Packaging type	TNR
Qty per Reel/Tube/Bag	1250
Reel Size (inch diameter)	13
Inside Tape Spacing (mm)	52
Int Box Dimension (mm)	340x340x410
Max qty per Box	6,250
Weight per unit (gm)	1.20 AD/1.10 AE
Weight per Reel (kg)	1.50 AD/1.20 AE
Note/Comments	

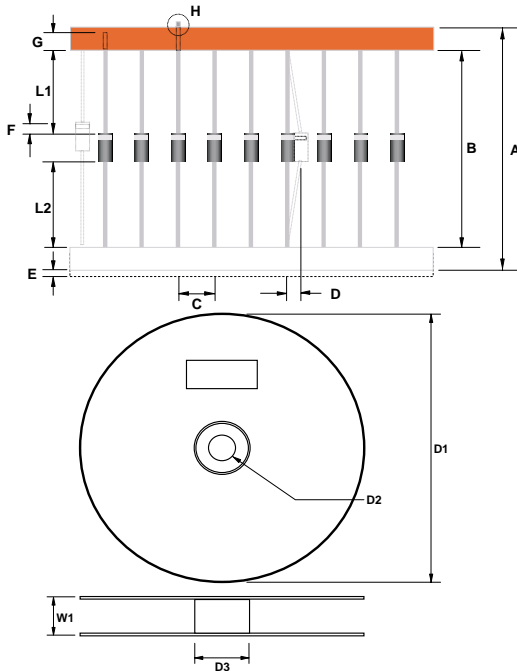
F63TNR Label sample



Human Readable Label sample



DO-201AD/AE Taping Dimension: Figure 5.0



TAPING DIMENSIONS

	INCH	MM	MILS	NOTES
A	2.520	64.00	2519	Overall width
	+0.066/	+1.69/	+66.5/	
	-0.027	-0.69	-27.0	
	1.496	38.00	1496	
	+0.059/	+1.5	+59	
	-0.039	-1.0	-39	
B	2.047±0.027	52 ±0.69	2047±27	Inside Tape Spacing
C	0.200 ±0.0157	10.08 ±0.40	394 ±15.7	Component Pitch
D	0.047(max)	1.2(max)	47(max)	Component Misalignment
E	0.022(max)	0.55(max)	22(max)	Tape Mismatch
F	0.027(max)	±0.69	±27	Units in line w/ one another
G	0.126(min)	3.2(min)	126(min)	Lead amount between tapes
H	0	0	0	Lead amount beyond tapes
L1-L2	±0.027	±0.69	±27	Delta between two leads

REEL DIMENSIONS

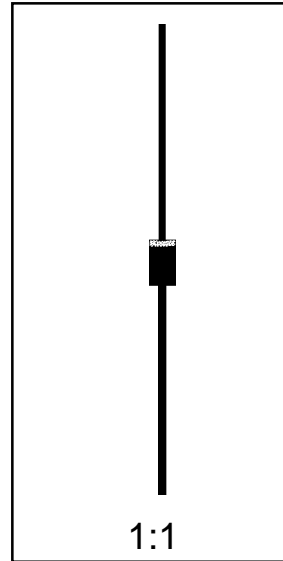
ITEM DESCRIPTION	SYMBOL	MINIMUM	MAXIMUM
Reel Diameter	D1	13.875	14.125
Arbor Hole Diameter (Standard)	D2	1.245	1.255
Core Diameter	D3	3.190	3.310
Flange to Flange Outer Width	W1		3.400

Note: All Dimensions are in inches

DO-201AD Package Dimensions



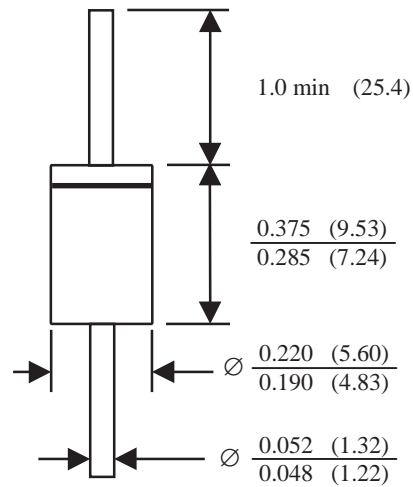
DO-201AD (FS PKG Code P3)



Scale 1:1 on letter size paper

Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 1.1



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