

**SURFACE MOUNT  
SUPER FAST RECTIFIER**

**REVERSE VOLTAGE – 600 Volts  
FORWARD CURRENT – 2 Amperes**

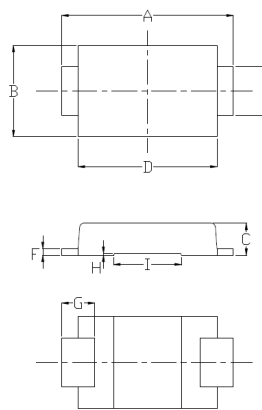
**FEATURES**

- Glass passivated chip
- Super fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current

**MECHANICAL DATA**

- Case: JEDEC DO-221AC
- Case Material: "Green" Molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Moisture Sensitivity: Level 1 per J-STD-020C
- Lead Free Finish, RoHS compliant
- Marking : FES2JD
- Weight: 0.035 grams (Approximate)

**F3-D**



F3-D			
DIM.	MIN.	TYP.	MAX
A	4.80	5.20	5.60
B	2.25	2.80	2.95
C	0.90	1.00	1.10
D	3.95	4.20	4.60
E	1.25	1.50	1.65
F	0.15	0.20	0.40
G	0.75	1.00	1.50
H	0.025	0.05	0.075
I	1.90	2.05	2.20

All dimension in millimeter

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

**ABSOLUTE RATINGS**

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	V
Maximum DC blocking voltage	$V_{DC}$	600	V
Maximum Average rectified forward current	$I_{(AV)}$	2	A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50	A
Operating and Storage temperature range	$T_J, T_{STG}$	-55 ~ +150	°C

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note 1)	$I_F = 2A$ , $T_J = 25^\circ C$	$V_F$	--	1.30	V
Reverse leakage current	$V_R = 600V$ , $T_J = 25^\circ C$ , $T_J = 125^\circ C$	$I_R$	--	5 350	uA
Typical junction capacitance (Note 2)		$C_J$		20	pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3,4)	$R_{thJC}$	16	°C/W

**DYNAMIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	MAX	UNIT
Reverse Recovery Time	$I_F = 0.5A$ , $I_R = 1.0A$ , $I_{rr} = 0.25A$	$T_{rr}$	35	nS

**Note :**

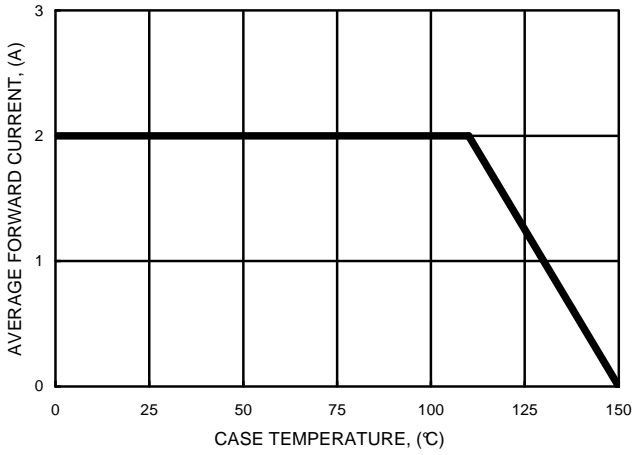
- (1) 300us pulse width, 2% duty cycle
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0V<sub>DC</sub>.
- (3) Thermal Resistance Junction to Case and Ambient
- (4) Device mounted on 14.9mm x 12.08 mm x 1.49 mm Aluminum Heatsink

REV. 0, Jul.-2015, KSGP08

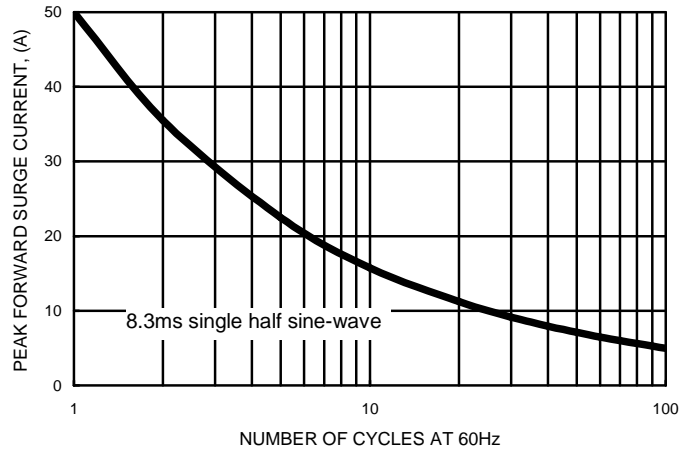
# RATING AND CHARACTERISTIC CURVES FES2JD



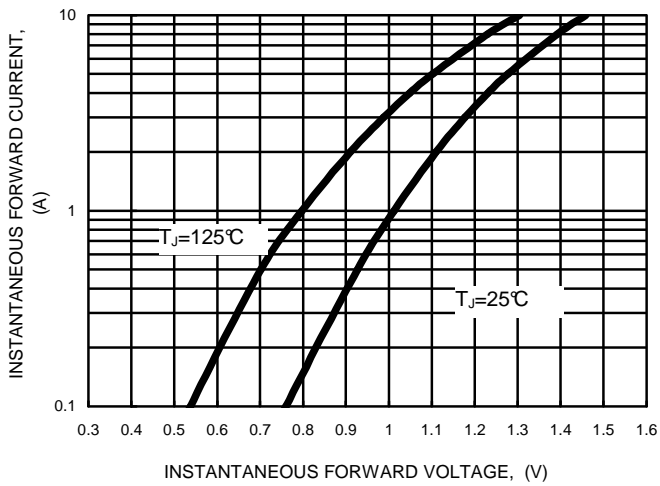
**FIG.1- FORWARD CURRENT DERATING CURVE**



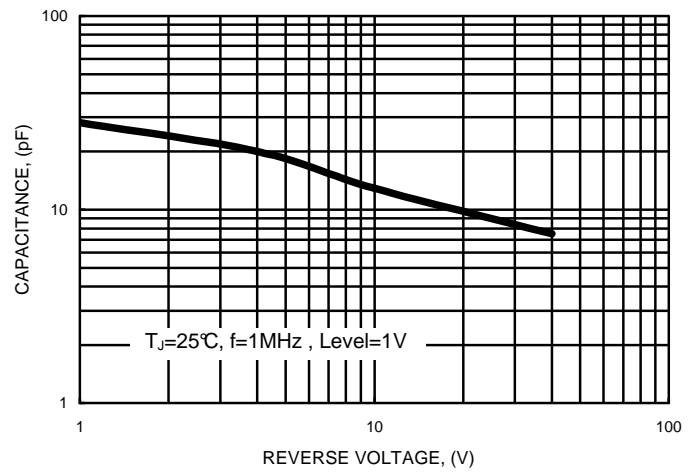
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



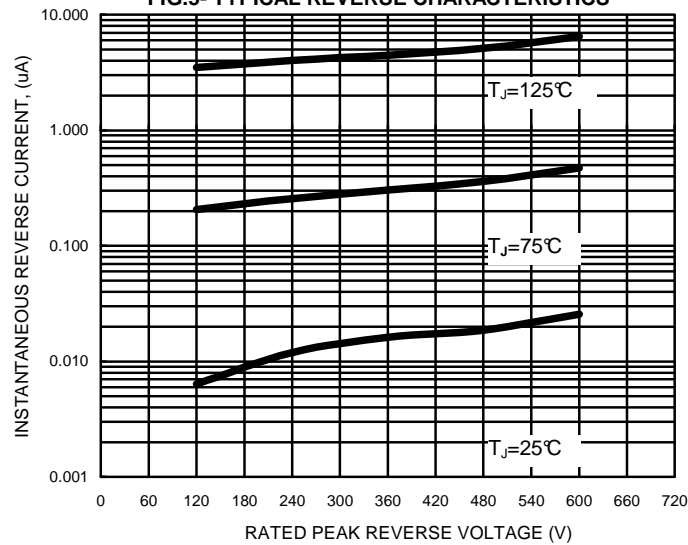
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



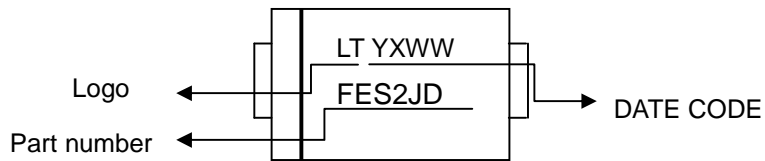
**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



Marking Information



Packaging Information :

DEVICE	Q'TY/REEL (PCS)	REEL DIA. (INCH)	Q'TY/BOX (PCS)	Q'TY/CARTON (PCS)
FES2JD	10000	13	10000	120K

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