

**SURFACE MOUNT
SUPER FAST RECTIFIER**

**REVERSE VOLTAGE – 600 Volts
FORWARD CURRENT – 1.0 Ampere**

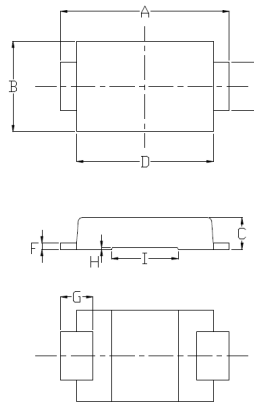
FEATURES

- 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
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Component in accordance to RoHs 2002/95/EC

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
Average rectified output current	I_F	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load.	I_{FSM}	30	A
Operation and storage temperature range	T_J, T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS		SYMBOL	MAX.	UNIT
Forward voltage (Note1)	$I_F=1.0A$	$T_J=25^\circ C$	V_F	1.3	V
Leakage current	$V_R=600V$	$T_J=25^\circ C$ $T_J=125^\circ C$	I_R	5.0 200	μA

THERMAL CHARACTERISTICS

THERMAL CHARACTERISTIC	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note2,3)	R_{thJ_C} R_{thJ_L} R_{thJ_A}	15 30 90	°C/W

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	Max.	Unit
Reverse recovery time	$I_F=0.5A, I_{rr}=0.25A, I_R=1.0A$	T_{rr}	35	ns

Note :

- (1) 300us pulse width, 2% duty cycle.
- (2) Thermal resistance test performed in accordance with JESD-51. R_{thj-L} is measured at the PIN 2, R_{thj-C} is measured at the top centre of body.
- (3) The device mounted on 5 mm x 7 mm copper pad

REV. 1, OCT-2014, KSGP04

RATING AND CHARACTERISTIC CURVES FES1JD



FIG.1- FORWARD CURRENT DERATING CURVE

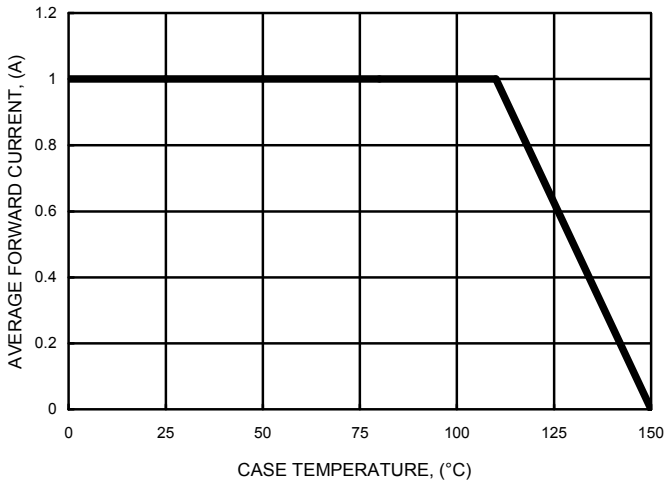


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

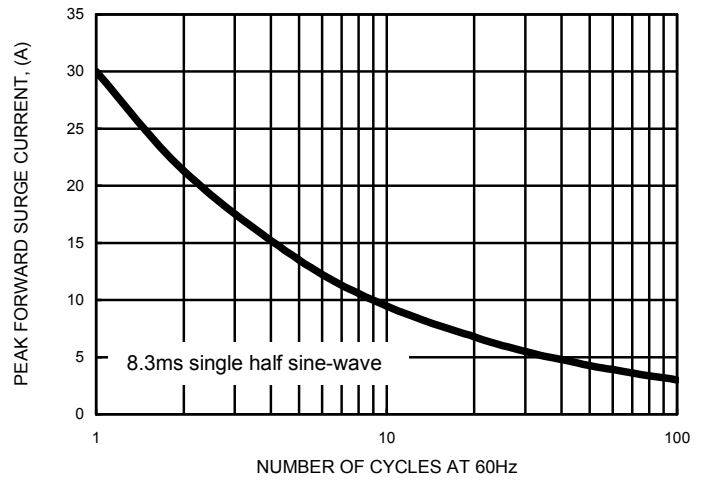


FIG.3- TYPICAL FORWARD CHARACTERISTICS

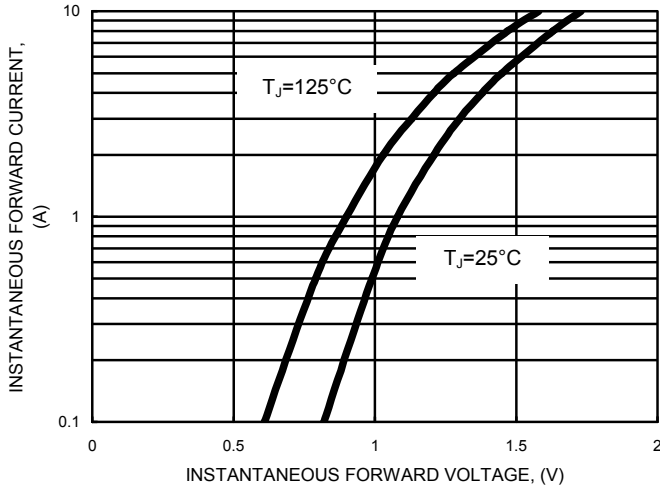


FIG.4- TYPICAL JUNCTION CAPACITANCE

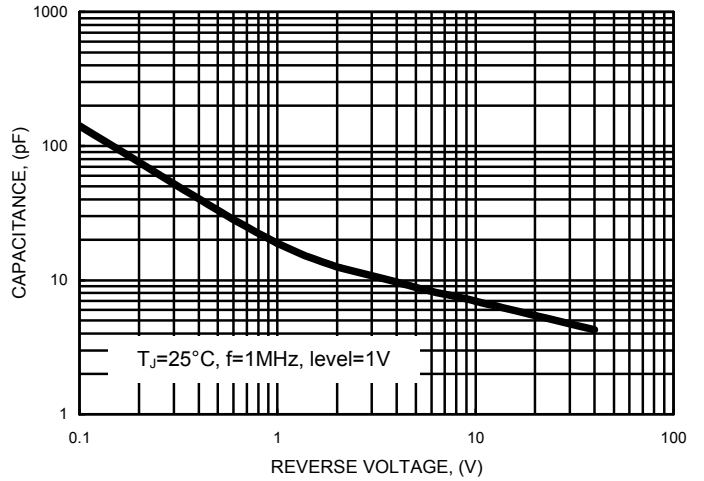
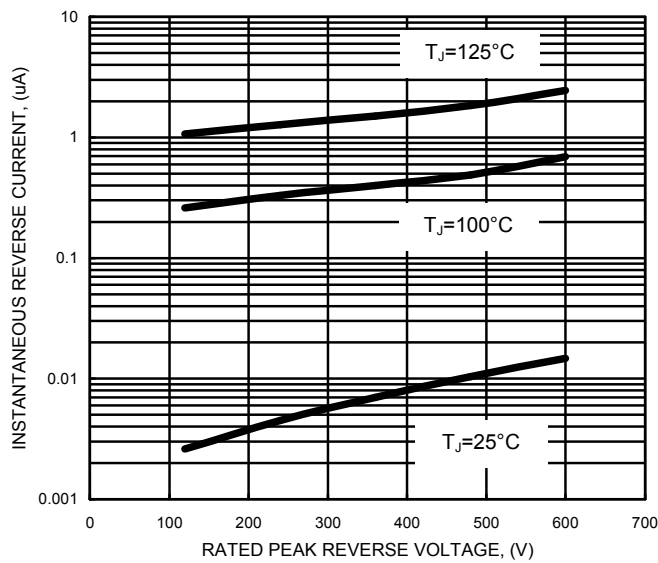


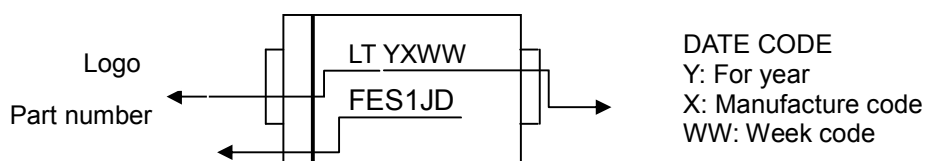
FIG.5- TYPICAL REVERSE CHARACTERISTICS



MARKING AND PACKAGING INFORMATION
FES1JD



Marking Information :



Packaging Information :

DEVICE	Q'TY/REEL (PCS)	REEL DIA. (INCH)	Q'TY/BOX (PCS)	Q'TY/CARTON (PCS)
FES1JD	10000	13	10000	120K

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