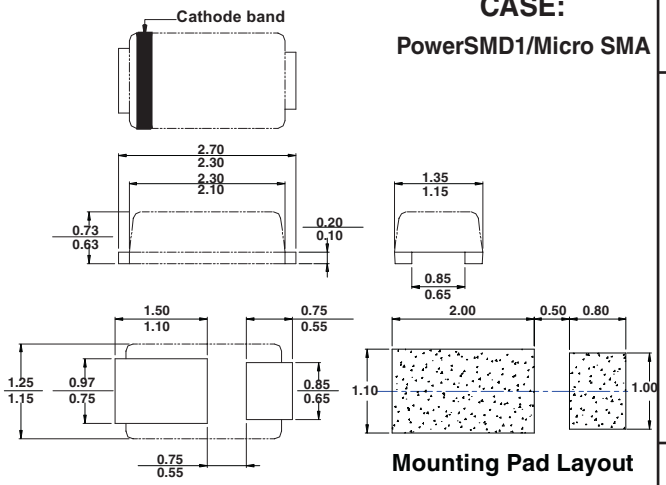
1 Amp. Surface Mount Schottky Barrier Rectifiers

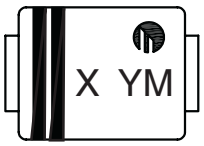
Dimensions in mm.



CASE:

PowerSMD1/Micro SMA

Mounting Pad Layout



X = Marking code

Y = Year code

M = Month code

Voltage	**Current**
30 V to 60 V	1.0 A

- For surface mounted application
- Easy pick and place
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability. low VF
- High surge current capability
- Plastic material used carriers Underwraiters Laboratory Classification 94V-0
- Epitaxial construction
- High temperature soldering: 260 ºC / 10 seconds at terminals

MECHANICAL DATA

Case: JEDEC SMA / DO-214AC Molded plastic
Terminals: Pure tin plated, lead free
Polarity: Indicated by cathode band
Packaging: 8 mm tape EIA-STD RS-481.
Weight: 0.066 g.

Maximum Ratings and Electrical Characteristics at 25 ºC

		FSS13M	FSS14M	FSS16M
	Marking code	**A**	**B**	**C**
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	30	40	60
$I_{F(AV)}$	Forward Current at T_L (See graphic)	1.0 A		
I_{FSM}	8.3 ms.Peak Forward Surge Current (Jedec Method)	25 A		
T_j	Operating Temperature Range	-55°C to +150°C		
T_{stg}	Storage Temperature Range	-55°C to +150°C		

Electrical Characteristics at Tamb = 25 °C

V_F	Maximum Instantaneous Forward Voltage	TYP.	MAX.	TYP.	MAX.
	I_F = 0.5 A @ 25 °C	0.45 V	--	0.51 V	--
	@ 125 °C	0.35 V	--	0.46 V	--
	I_F = 1.0 A @ 25 °C	0.52 V	0.55 V	0.64 V	0.68 V
	@ 125 °C	0.46 V	0.50 V	0.57 V	0.60 V
I_R	Maximum DC Reverse Current Rated DC Blocking Voltage	TYP.	MAX.	TYP.	MAX.
	Ta = 25 °C at	5 µA	50 µA	5 µA	50 µA
	Ta =125°C	3 mA	10 mA	3 mA	10 mA
	Ta =150°C	5.3 mA	--	6.7 mA	--
C_j	Typical Junction Capacitance (Note 1)	50 pF		40 pF	
$R_{th\ (j-a)}$ $R_{th\ (j-l)}$ $R_{th\ (j-c)}$	Typical Thermal Resistance (Note 2)	125 °C/W 30 °C/W 40 °C/W			

NOTES: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
2. Mount on Cu-Pad Size 6mm x 6mm x 1.6mm on P.C.B.

Rating And Characteristic Curves

Fig. 1 Maximum Forward Current Derating Curve

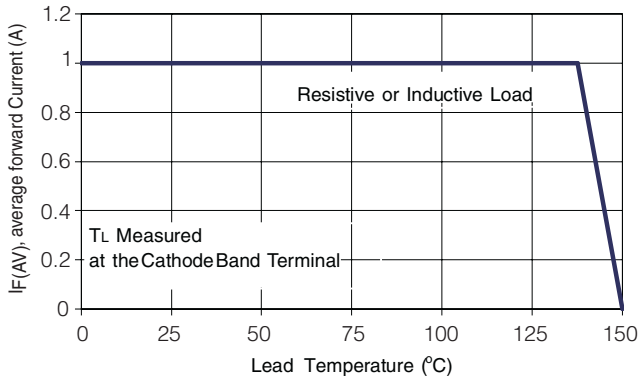


Fig. 2 Maximum Forward Surge Current

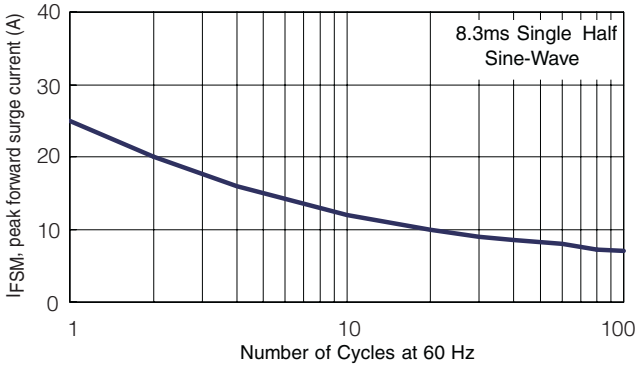


Fig. 3 Typical Forward Characteristics FSS13M/14M

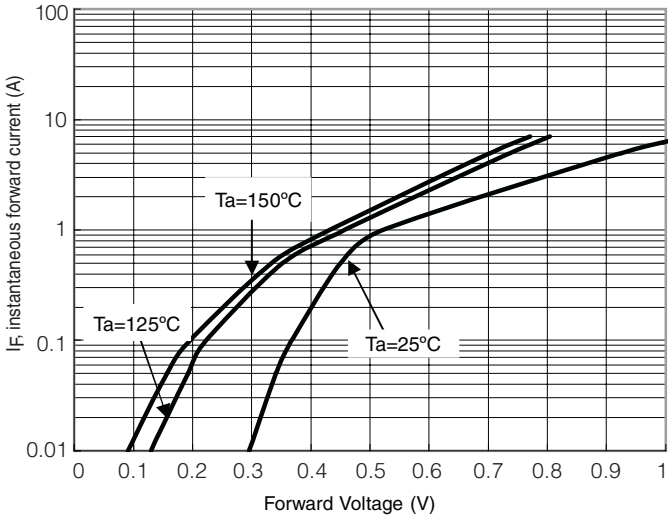


Fig. 4 Typical Forward Characteristics FSS16M

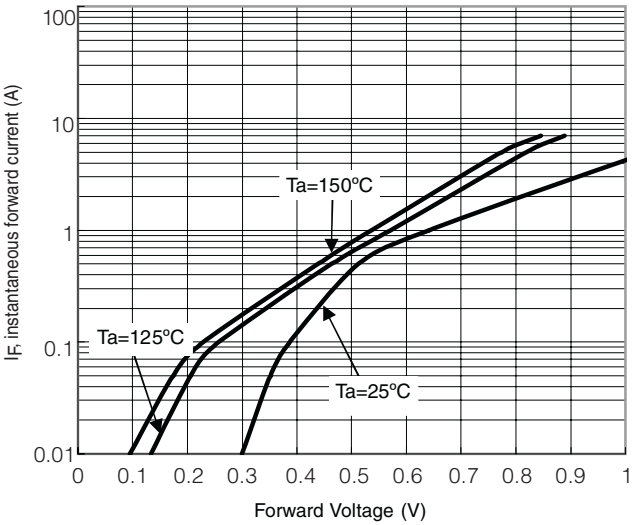


Fig. 5 Typical Reverse Characteristics FSS13M/14M

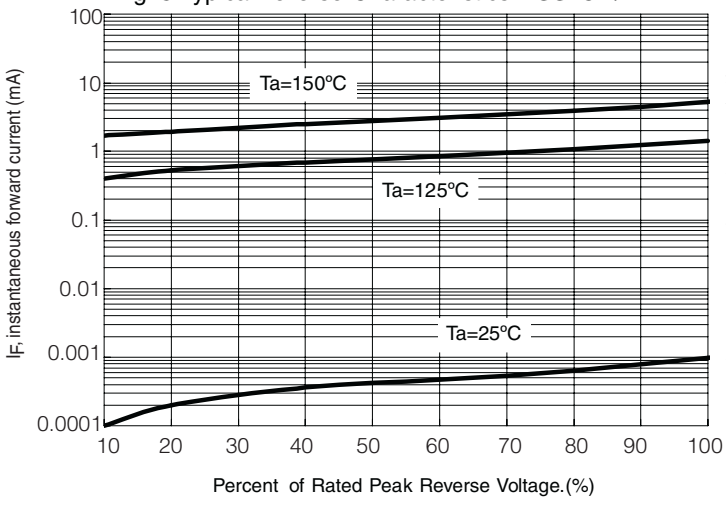
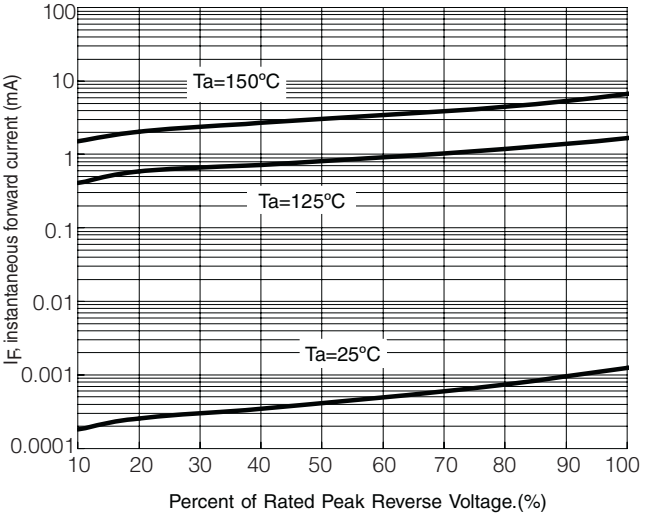


Fig. 6 Typical Reverse Characteristics FSS16M



Rating And Characteristic Curves

Fig. 7 Typical Junction Capacitance

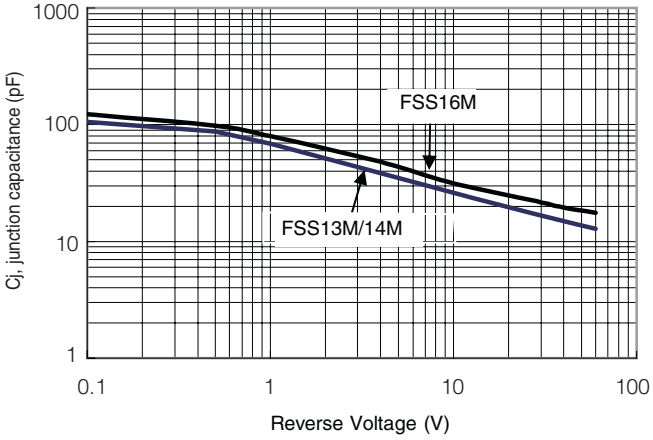


Fig. 8 Typical Transient Thermal Impedance