

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Ultrafast Reverse Recovery Time
- Glass Passivated Chip Junction
- Low Leakage Current
- Low Switching Losses, High Efficiency
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 60°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SF1600	SF1600	1600V	1120V	1600V

Electrical Characteristics @ 25°C Unless Otherwise Specified

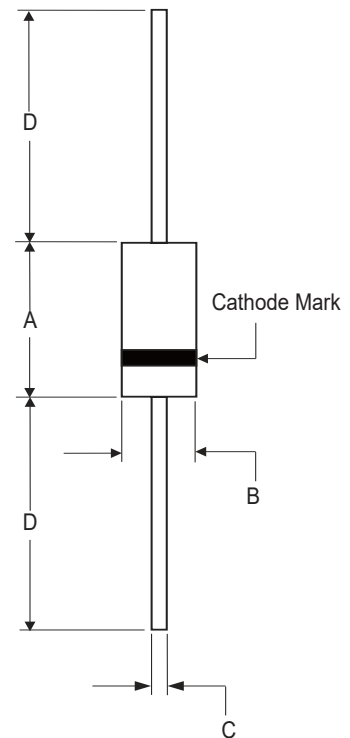
Average Forward Current	$I_{F(AV)}$	1.0A	$T_A=25^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	3.4V	$I_{FM}=1.0A; T_J=25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	2.5 μA 100 μA	$T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C}$
Maximum Reverse Recovery Time	t_{rr}	75ns	$I_F=0.5A; I_R=1.0A;$ $I_{RR}=0.25A$
Typical Junction Capacitance	C_J	14pF	Measured at 1.0MHz $V_R=4.0V$

*Pulse Test: Pulse Width 300 usec, Duty Cycle 1%.

Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

1.0 Amp Super Fast Rectifier 1600 Volts

DO-15



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.230	0.300	5.80	7.60	
B	0.104	0.140	2.60	3.60	
C	0.026	0.035	0.70	0.90	
D	1.000	----	25.40	----	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

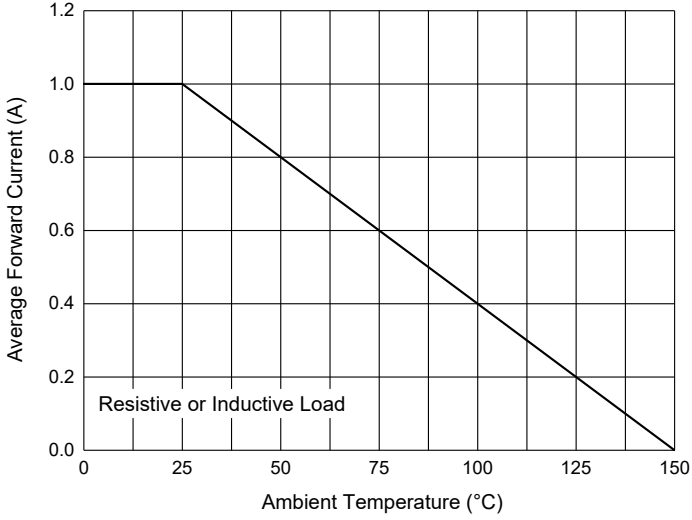


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

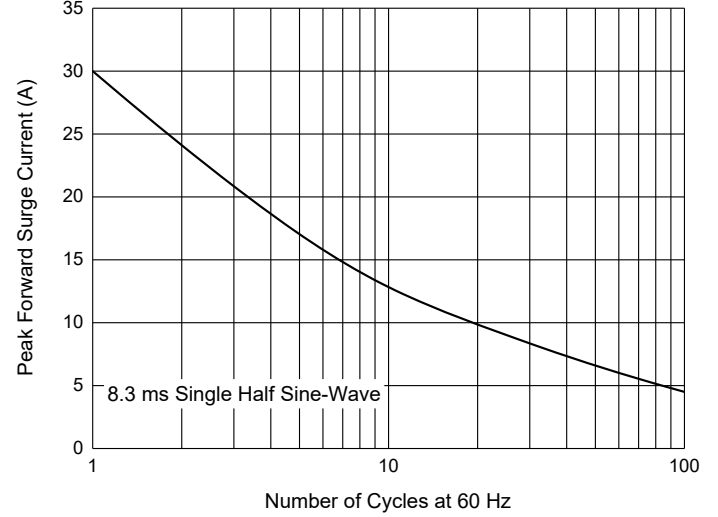


Fig. 3 - Typical Instantaneous Forward Characteristics

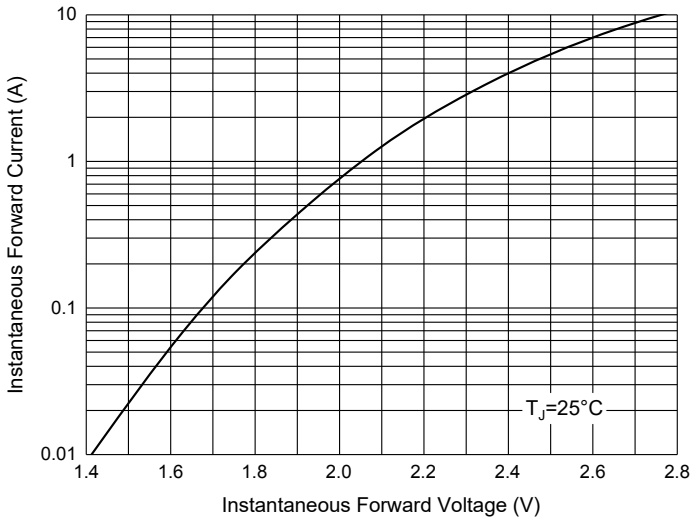
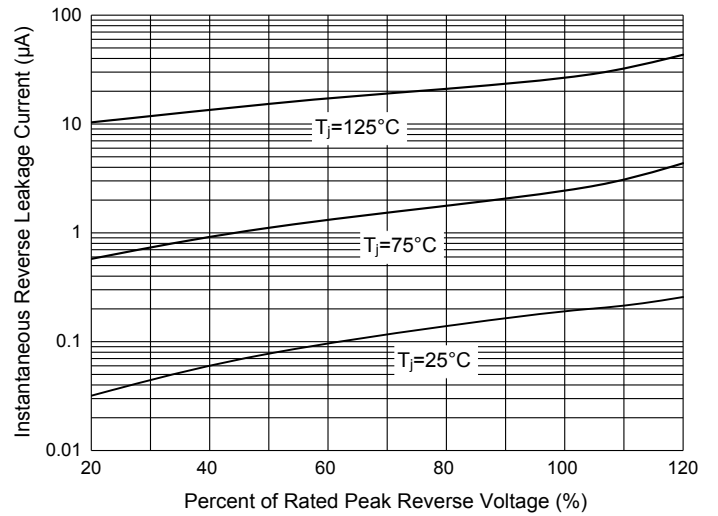


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 4Kpcs/Reel
(Part Number)-AP	Ammo Packing: 3Kpcs/Ammo Box
(Part Number)-BP	Bulk:500pcs/Box,25Kpcs/Carlton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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