

Features



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

1 Amp Super Fast Recovery Rectifier 1600 Volts

Maximum Ratings @ 25°C (Unless Otherwise Specified)

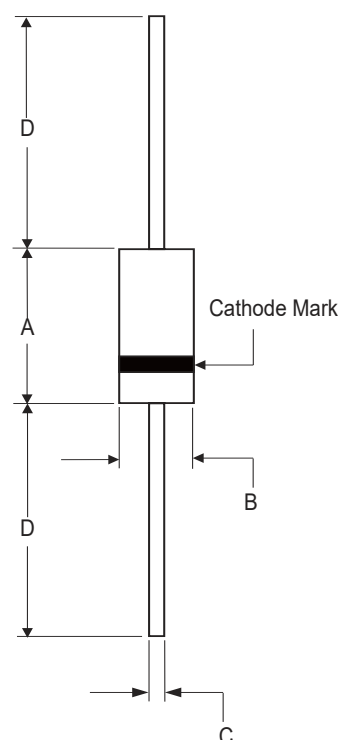
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	1600	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	V_{RMS}	1120	V
Average Rectified Forward Current @ $T_A=25^\circ\text{C}$	$I_{F(AV)}$	1	A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	30	A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		60	
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$	I^2t	3.735	A^2s

Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode		
2	Anode		

Note: 1. High temperature solder exemption applied, see EU directive annex 7a.

DO-15



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.230	0.300	5.80	7.60	
B	0.104	0.140	2.60	3.60	
C	0.028	0.035	0.70	0.90	
D	1.000	-----	25.40	-----	

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead			30		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient			80		°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=1A; T_J=25^{\circ}C$			3.4	V
Reverse Current	I_R	at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$			2.5 100	μA
Reverse Recovery Time	t_{rr}	$I_F=0.5A; I_R=1.0A;$ $I_{rr}=0.25A; T_J=25^{\circ}C$			75	ns
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		12		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

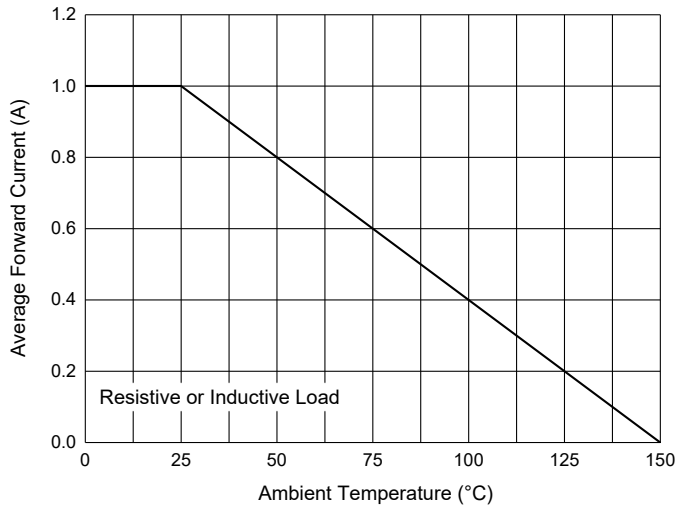


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

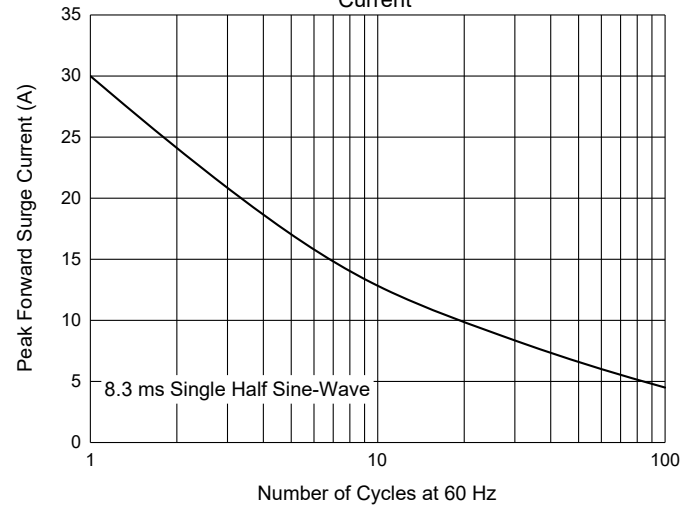


Fig. 3 - Typical Forward Characteristics

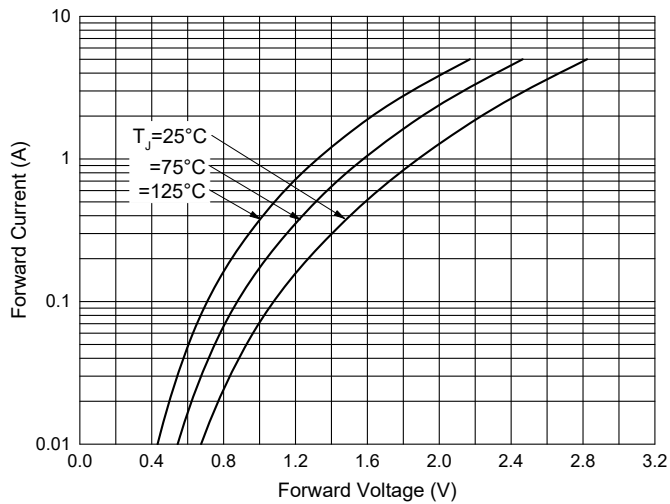


Fig. 4 - Typical Reverse Leakage Characteristics

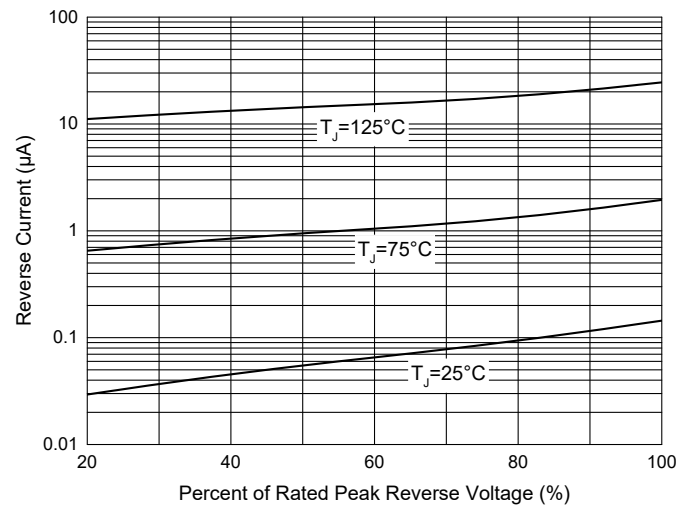
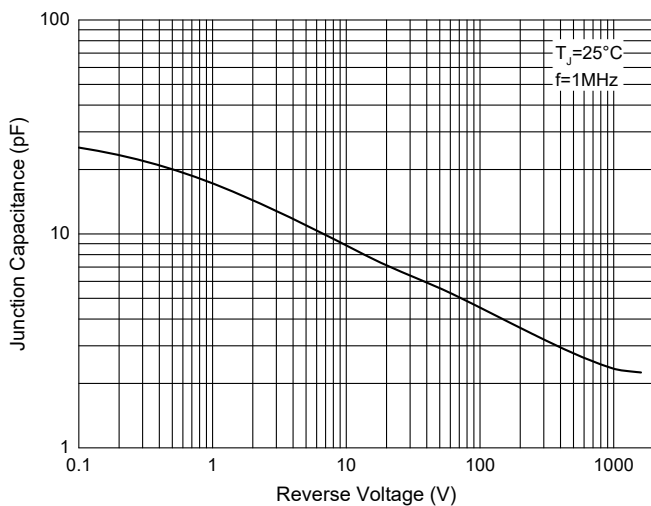


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
SF1600-TP	Tape&Reel:4Kpcs/Reel
SF1600-AP	Ammo Packing: 3Kpcs/Ammo Box
SF1600-BP	Bulk:500pcs/Box,25Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. SF1600-TP-HF

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