Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 1)("P" Suffix Designates RoHS Compliant. See Ordering Information)
- High Surge Current Capability and High Current Capability

5 Amp Schottky Rectifier 20 to 200 Volts

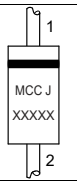
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value									Unit
		SR 502	SR 503	SR 504	SR 505	SR 506	SR 508	SR 5010	SR 5150	SR 5200	
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Working Peak Reverse Voltage	V_{RWM}										
DC Blocking Voltage	V_R										
RMS Reverse Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Average Rectified Forward Current	$I_{F(AV)}$	5									A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	150									A
Current Squared Time @1ms≤t≤8.3ms	I^2t	93									A^2s

Marking Code

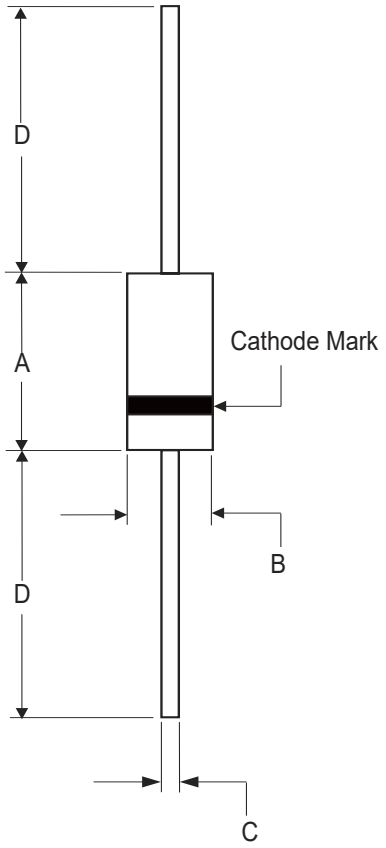
Part Number	Marking Code
SR502	SR502
SR503	SR503
SR504	SR504
SR505	SR505
SR506	SR506
SR508	SR508
SR5010	SR5010
SR5150	SR5150
SR5200	SR5200

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-201AD



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.287	0.374	7.30	9.50	
B	0.189	0.208	4.80	5.30	
C	0.048	0.052	1.20	1.30	
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
$Rth_{(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		8		°C/W
$Rth_{(J-C)}$	Thermal Resistance from Junction to Case	Note 1		10		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		25		°C/W

Note: 1. Thermal resistance from junction to lead PCB mounting 0.375" (9.5 mm) lead length.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage						
SR502 ~ SR504	V_F	I_F=5A;T_J=25°C			0.55	V
SR505 ~ SR506					0.70	
SR508 ~ SR5010					0.85	
SR5150 ~ SR5200					0.90	
Reverse Current						
SR502 ~ SR506	I_R	at Rated V_R;T_J=25°C			0.1	mA
		at Rated V_R;T_J=100°C			10	
SR508 ~ SR5200		at Rated V_R;T_J=25°C			0.01	
		at Rated V_R;T_J=100°C			1	
Junction Capacitance						
SR502 ~ SR504	C_J	V_R=4V;f=1MHz;T_J=25°C		275		pF
SR505 ~ SR506				195		
SR508 ~ SR5010				135		
SR5150 ~ SR5200				95		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

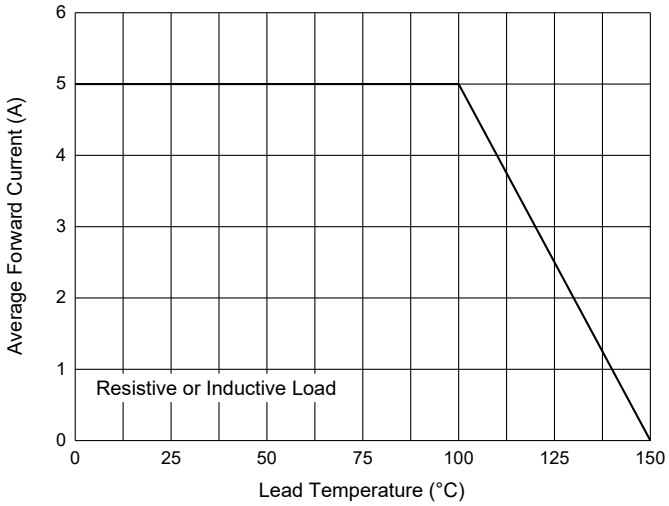


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

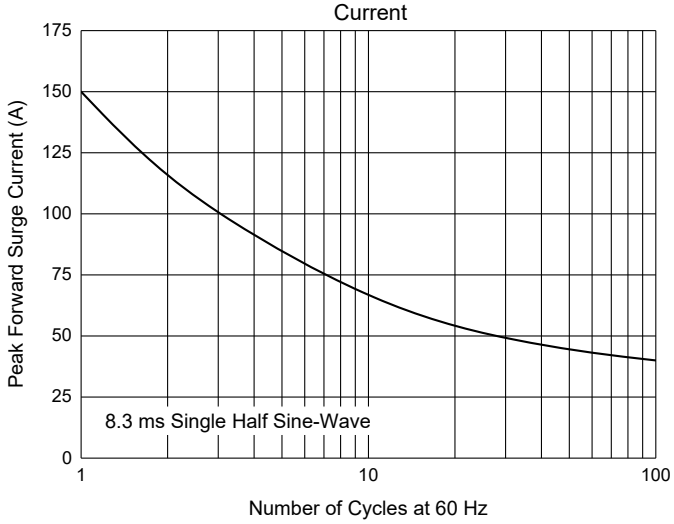


Fig. 3 - Typical Forward Characteristics

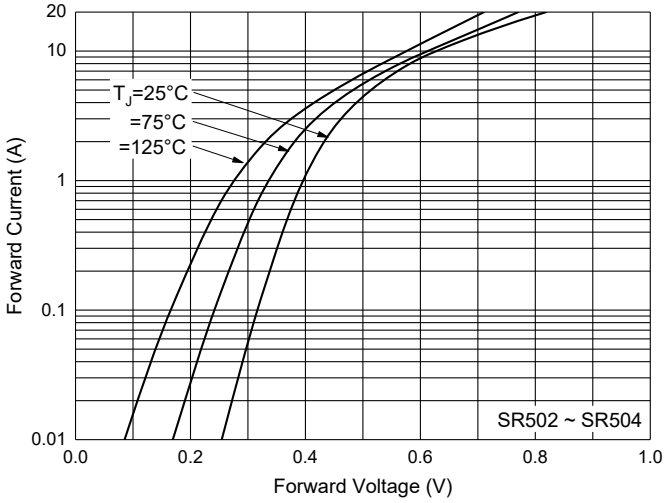


Fig. 4 - Typical Reverse Leakage Characteristics

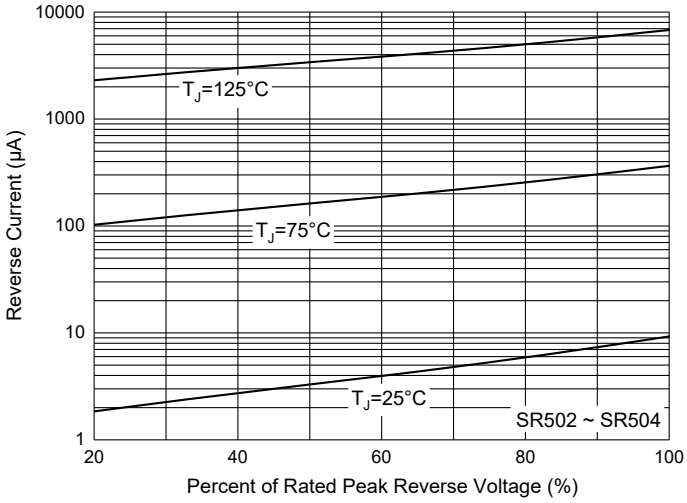


Fig. 5 - Typical Forward Characteristics

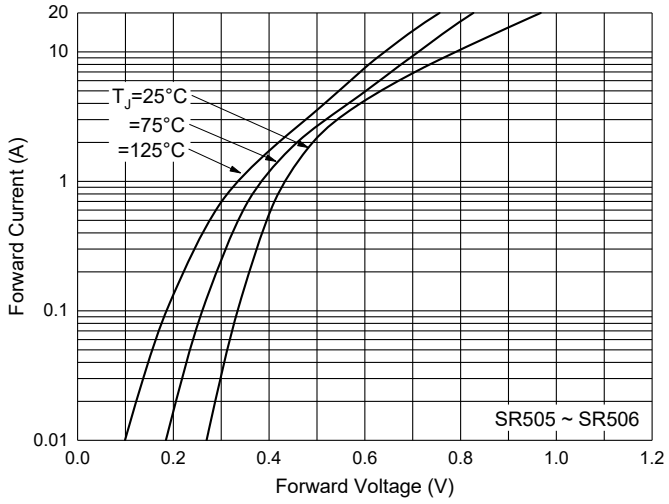
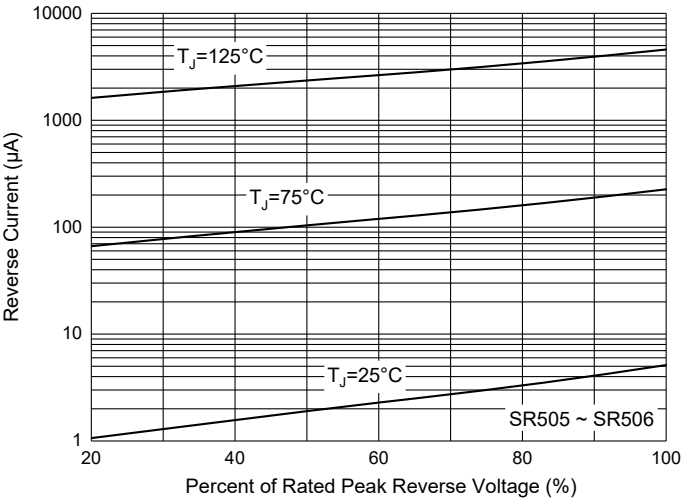


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Forward Characteristics

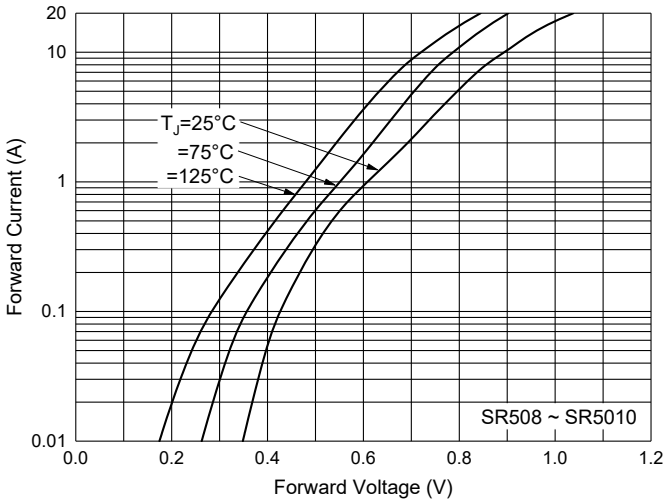


Fig. 8 - Typical Reverse Leakage Characteristics

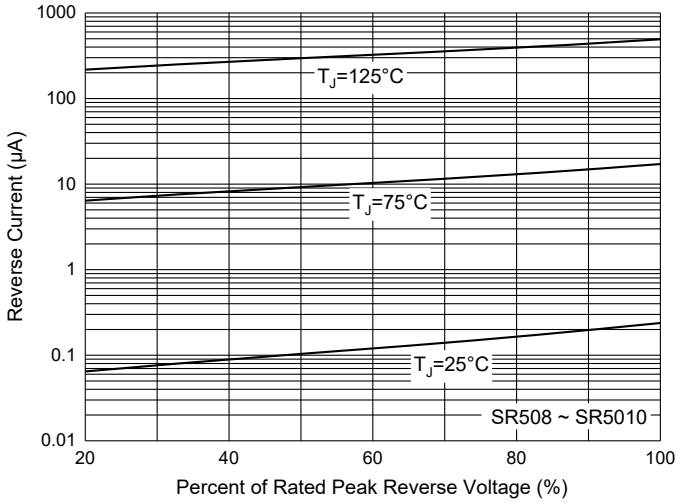


Fig. 9 - Typical Forward Characteristics

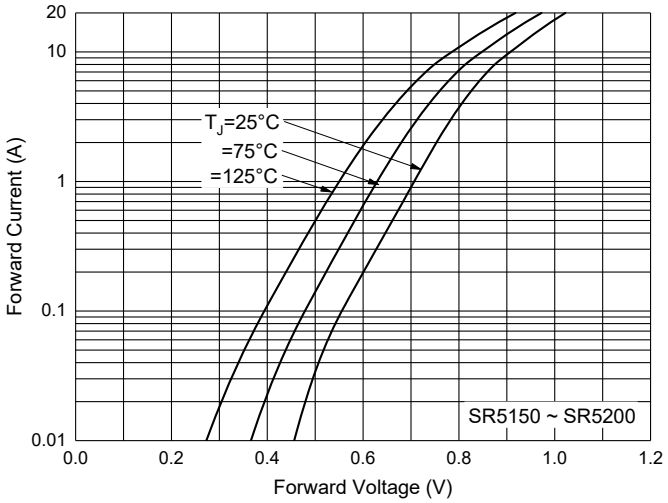


Fig. 10 - Typical Reverse Leakage Characteristics

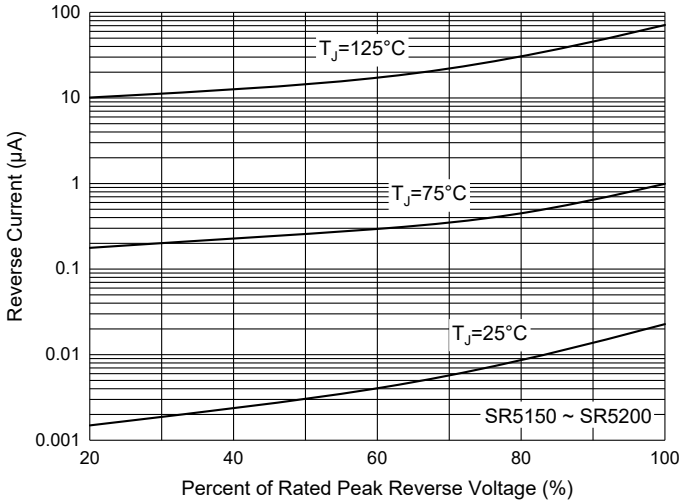


Fig. 11 - Typical Capacitance Characteristics

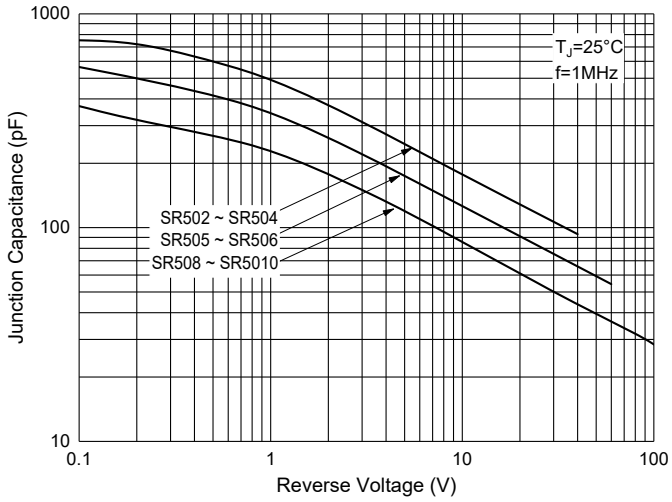
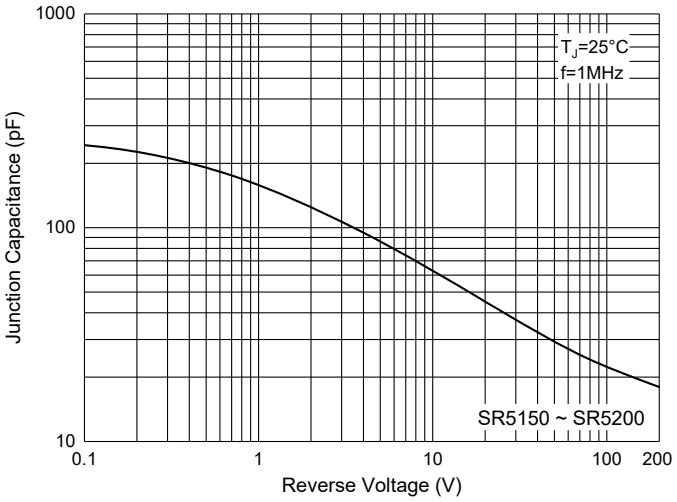


Fig. 12 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number - TP	Tape&Reel:1.2Kpcs/Reel
Part Number - AP	Ammo Packing: 1.2Kpcs/Ammo Box
Part Number - BP	Bulk:500pcs/Box,12Kpcs/Carton

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