

Schottky Barrier Rectifiers

Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 150°C junction temperature. Typical application are in switching Mode Power Supplies such as adaptators, DC/DC convertes, free-wheeling and polarity protection diodes.

Features

- * Super Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Guarantee Reverse Avalanche.
- * Guard-Ring for Stress Protection.
- * Low Power Loss & High efficiency.
- * 150°C Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O



* In compliance with EU RoHs 2002/95/EC directives

MAXIMUM RATINGS

Characteristic	Symbol	SR10060L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	42	V
Average Rectifier Forward Current	I_O	10	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	175	A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150	°C

THERMAL RESISTANCES

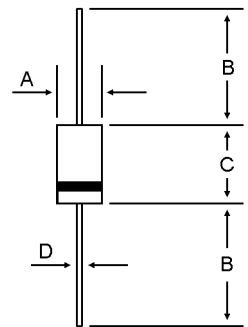
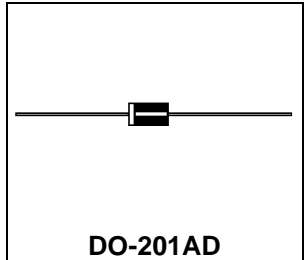
Maximum Thermal Resistance junction to case	$R_{\theta j-c}$	40	°C/w
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ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	SR10060L			Unit
		Min	Typ.	Max.	
Maximum Instantaneous Forward Voltage ($I_F = 0.1$ Amp $T_C = 25^\circ C$) ($I_F = 5.0$ Amp $T_C = 25^\circ C$) ($I_F = 10$ Amp $T_C = 25^\circ C$)	V_F	---	0.26	0.28	V
		---	0.44	0.49	
		---	0.50	0.60	
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ C$) (Rated DC Voltage, $T_C = 100^\circ C$)	I_R	---	0.17	0.25	mA
		---	15	30	

SCHOTTKY BARRIER RECTIFIERS

10 AMPERES
60 VOLTS



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	5.02	6.52
O	3.70	3.90

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

SR10060L

FIG-1 FORWARD CURRENT DERATING CURVE

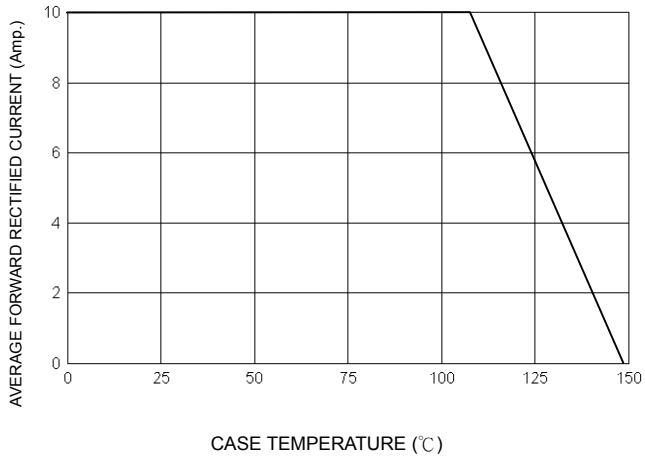


FIG-2 TYPICAL FORWARD CHARACTERISTICS

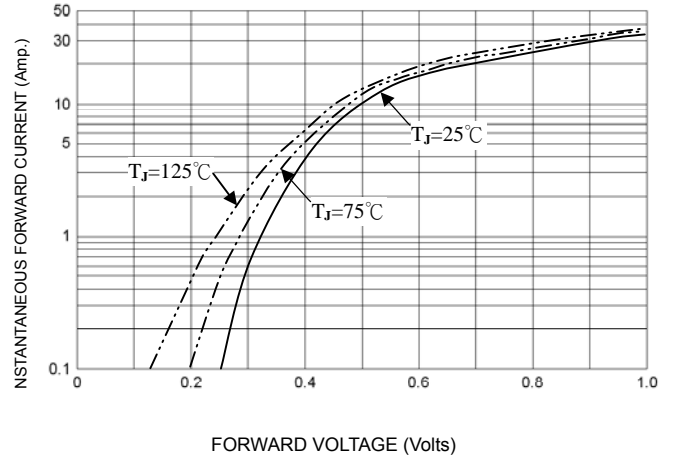


FIG-3 TYPICAL REVERSE CHARACTERISTICS

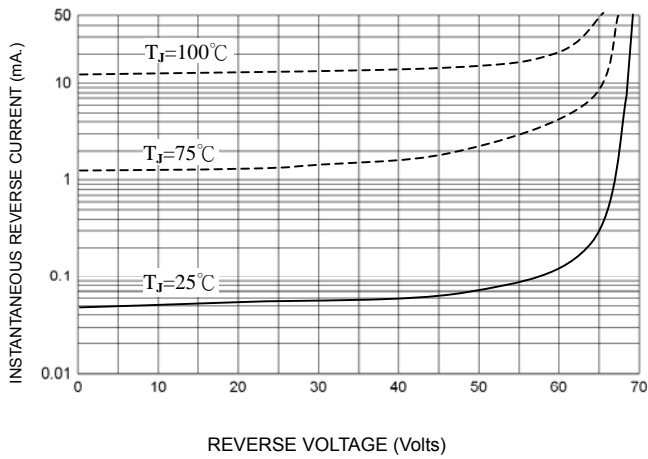


FIG-4 TYPICAL JUNCTION CAPACITANCE

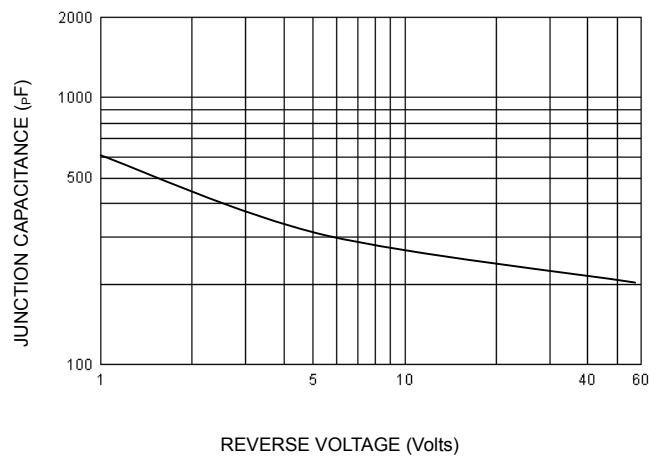


FIG-5 PEAK FORWARD SURGE CURRENT

