

## Schottky Barrier Rectifiers

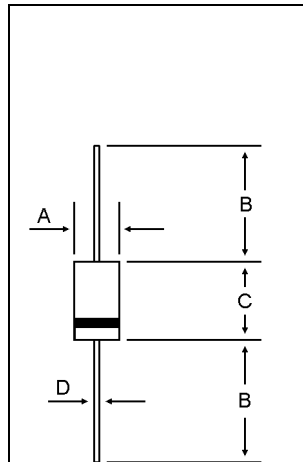
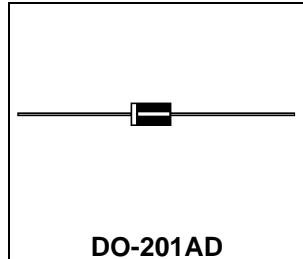
Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 150°C junction temperature. Typical application are in switching Mode Power Supplies such as adaptors, DC/DC converters, free-wheeling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

- \* 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
- \* Moisture Sensitivity Level: MSL-1



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

**SCHOTTKY BARRIER RECTIFIERS**  
**3.0 AMPERES**  
**150 VOLTS**



### MAXIMUM RATINGS

Characteristic	Symbol	SRT3150M	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	150	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	105	V
Average Rectifier Forward Current	$I_O$	3.0	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	$I_{FSM}$	75	A
Operating and Storage Junction Temperature Range	$T_J, T_{STG}$	-65 to +150	°C

DIM	MILLIMETERS	
	MIN	MAX
A	5.00	5.60
B	25.40	---
C	8.50	9.50
D	1.20	1.30

### THERMAL RESISTANCES

Typical Thermal Resistance junction to case	$R_{\theta j-c}$	5.5	°C/w
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### ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	SRT3100M			Unit
		Min	Typ	Max	
Maximum Instantaneous Forward Voltage ( $I_F = 0.1$ Amp $T_C = 25^\circ C$ ) ( $I_F = 3.0$ Amp $T_C = 25^\circ C$ )	$V_F$	---	0.48 0.83	0.50 0.85	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ C$ ) (Rated DC Voltage, $T_C = 125^\circ C$ )	$I_R$	---	0.009 10	0.01 12	mA

CASE---  
Transfer molded plastic

POLARITY---  
Cathode indicated polarity band

# SRT3150M

FIG-1 FORWARD CURRENT DERATING CURVE

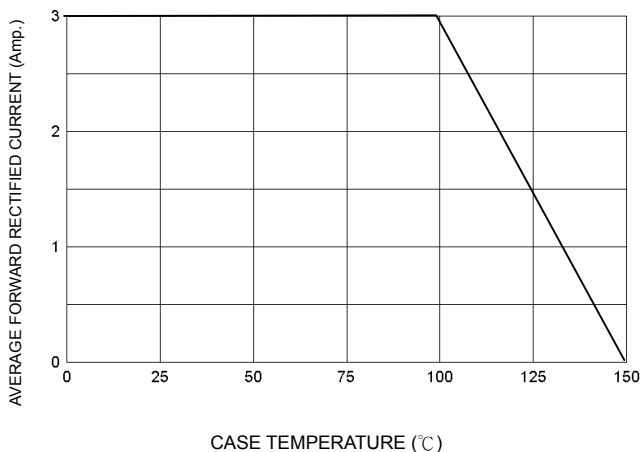


FIG-2 TYPICAL FORWARD CHARACTERISTICS

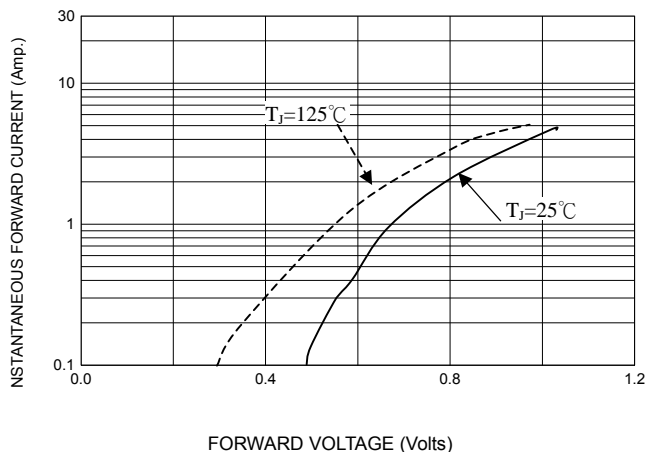


FIG-3 TYPICAL REVERSE CHARACTERISTICS

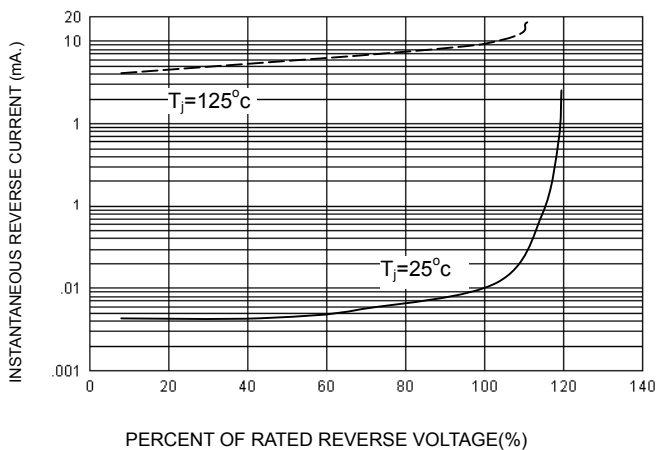


FIG-4 TYPICAL JUNCTION CAPACITANCE

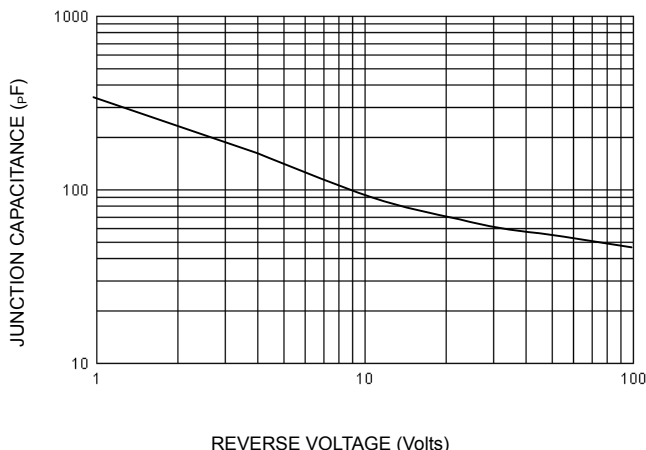
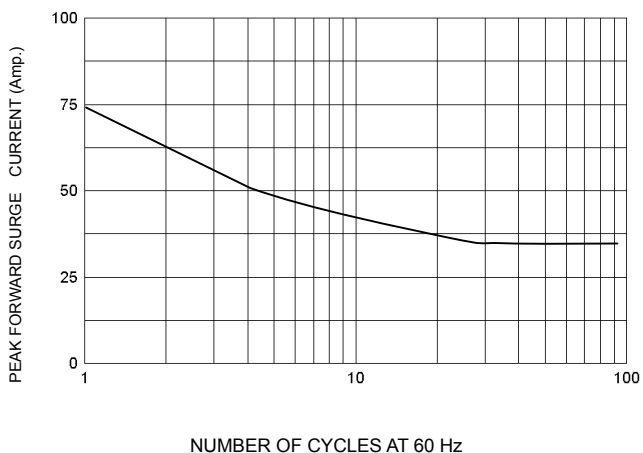


FIG-5 PEAK FORWARD SURGE CURRENT



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