

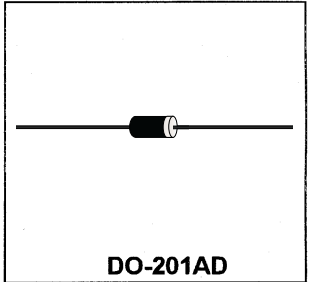
## Schottky Barrier Rectifiers

Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes.

- \* Low Forward Voltag.
- \* Low Switching noise.
- \* High Current Capacity
- \* Guarantee Reverse Avalance.
- \* Guard-Ring for Stress Protection.
- \* Low Power Loss & High efficiency.
- \* 125 °C Operating Junction Temperature
- \* Low Stored Charge Majority Carrier Cnduction.
- \* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

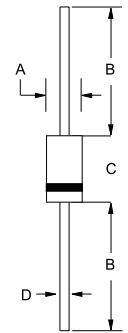
**SCHOTTKY BARRIER RECTIFIERS**

**5.0 AMPERES  
70 -100 VOLTS**



### MAXIMUM RATINGS

Characteristic	Symbol	SR				Unit
		507	508	509	5100	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	70	80	90	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	56	63	70	V
Average Rectifier Forward Current	$I_O$	5				A
Non-Repetitive Peak Surge Current ( Surge applied at rate load conditions halfware, single phase, 60Hz )	$I_{FSM}$	125				A
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	- 65 to + 125				°C



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

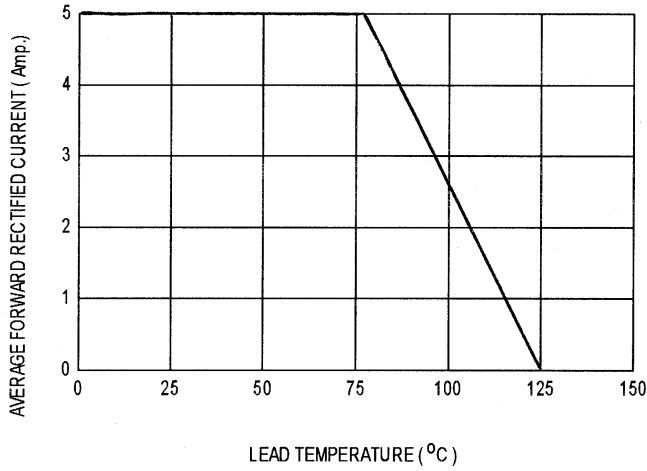
### ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	SR				Unit
		507	508	509	5100	
Maximum Instantaneous Forward Voltage ( $I_F=5$ Amp )	$V_F$	0.75		0.85		V
Maximum Instantaneous Reverse Current ( Rated DC Voltage, $T_C = 25$ °C) ( Rated DC Voltage, $T_C = 100$ °C)	$I_R$	5.0 50				mA
Typical Junction Capacitance ( Reverse Voltage of 4 volts & $f=1$ MHz)	$C_p$	300		275		pF

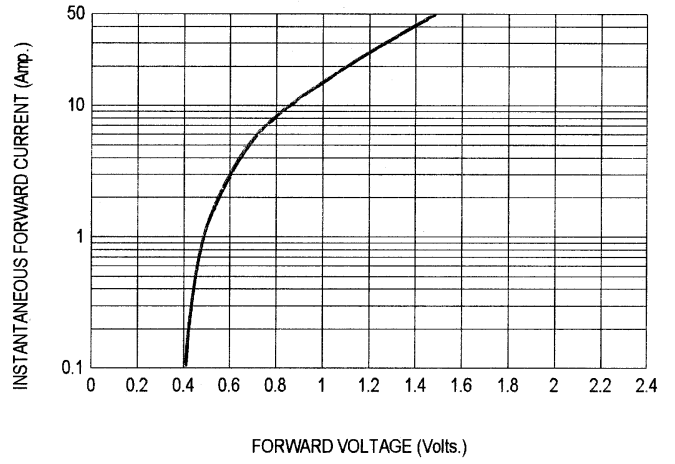
CASE---  
Transfer molded plastic

POLARITY---  
Cathode indicated polarity band

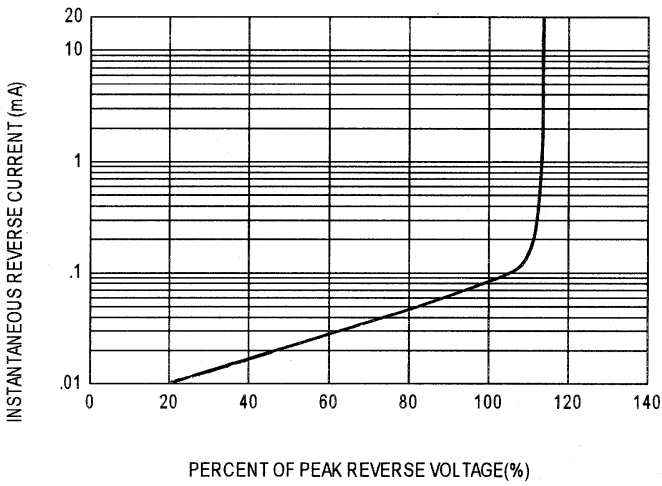
**FIG-1 FORWARD CURRENT DERATING CURVE**



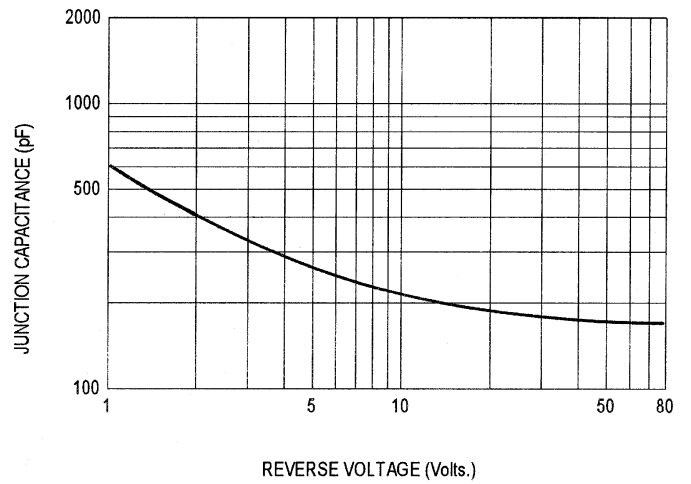
**FIG-2 TYPICAL FORWARD CHARACTERISTICS**



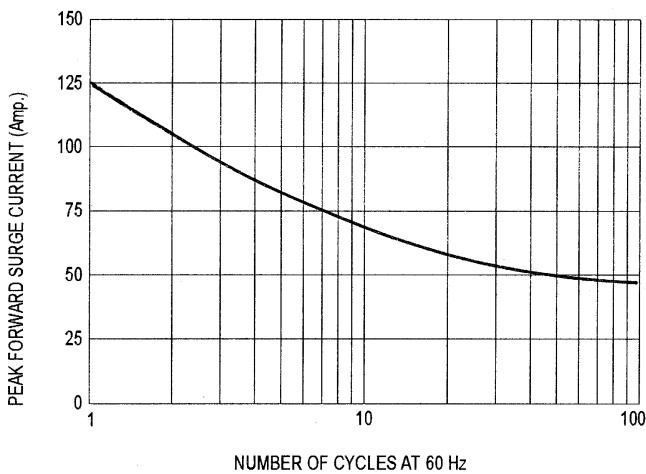
**FIG-3 TYPICAL REVERSE CHARACTERISTICS**



**FIG-4 TYPICAL JUNCTION CAPACITANCE**



**FIG-5 PEAK FORWARD SURGE CURRENT**



# SR509 , SR5100

FIG-1 FORWARD CURRENT DERATING CURVE

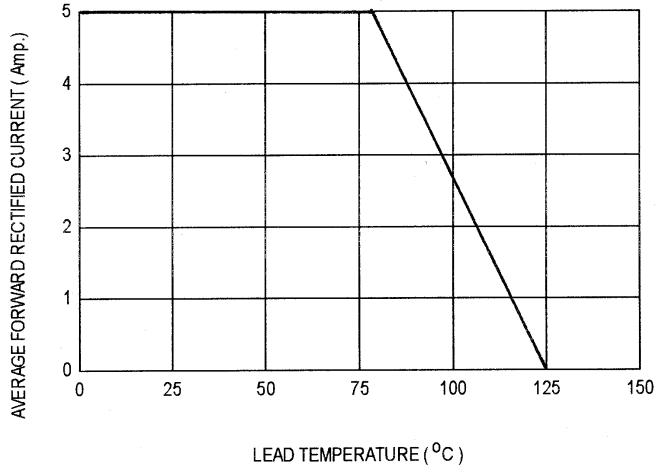


FIG-2 TYPICAL FORWARD CHARACTERISTICS

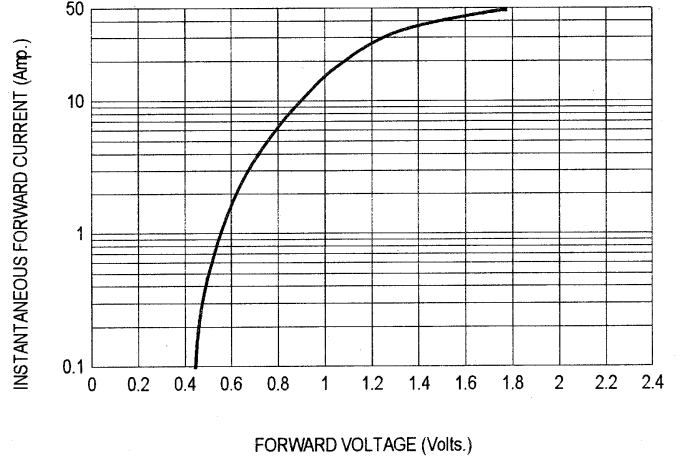


FIG-3 TYPICAL REVERSE CHARACTERISTICS

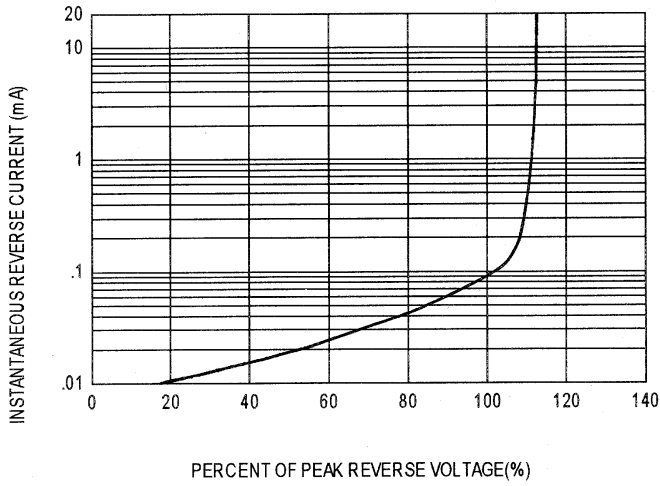


FIG-4 TYPICAL JUNCTION CAPACITANCE

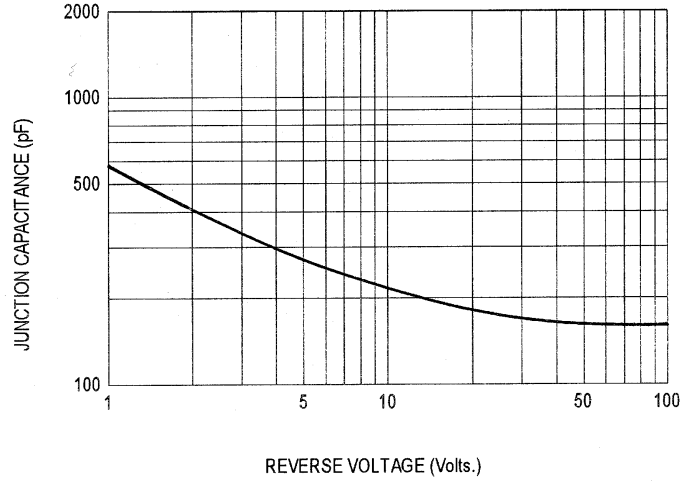


FIG-5 PEAK FORWARD SURGE CURRENT

