

## Surface Mount Schottky Barrier Rectifiers

Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal. proprietary barrier technology allows for reliable operation up to 150°C junction temperature. Typical applications 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.
- \* High Operating Junction Temperature
- \* Low Stored Charge Majority Carrier Conduction.
- \* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- \* Pb free
- \* In compliance with EU RoHs directives

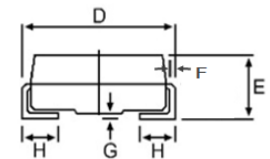
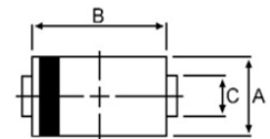


### SCHOTTKY BARRIER RECTIFIERS

**2.0 AMPERES  
100 VOLTS**



**DO-214AA(SMB)**



DIM	MILLIMETERS	
	MIN	MAX
A	3.30	3.94
B	4.06	4.60
C	1.80	2.20
D	4.90	5.60
E	2.00	2.60
F	0.152	0.305
G		0.203
H	0.75	1.55

### MAXIMUM RATINGS

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Rectifier Forward Current	$I_O$	2.0	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	$I_{FSM}$	50	A
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-50 to +150	°C

### ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage ( $I_F = 2.0$ Amp, $T_C = 25^\circ\text{C}$ ) ( $I_F = 2.0$ Amp, $T_C = 125^\circ\text{C}$ )	$V_F$	---	0.72 0.57	0.85 ---	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$ ) (Rated DC Voltage, $T_C = 125^\circ\text{C}$ )	$I_R$	---	0.3 300	500 ---	uA
Typical Total Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz)	$C_T$		80		pF

CASE---  
Transfer molded plastic

POLARITY---  
Cathode indicated polarity band

FIG-1 TYPICAL FORWARD CURRENT DERATING CURVE

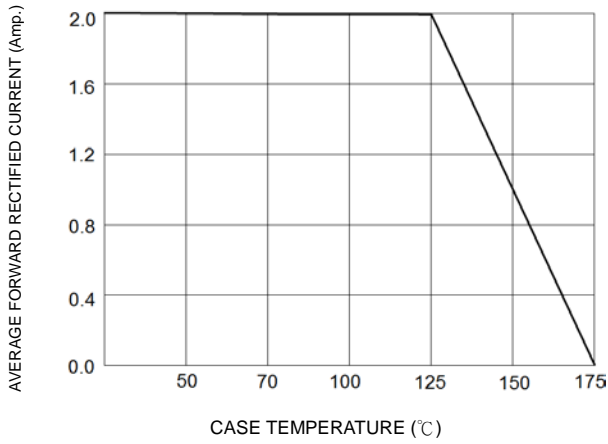


FIG-2 TYPICAL FORWARD CHARACTERISTICS

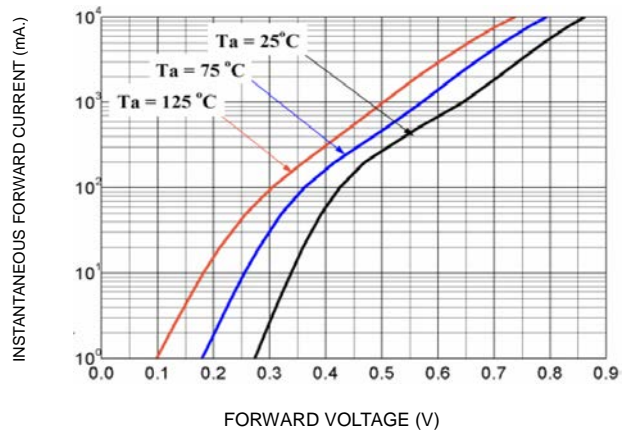


FIG-3 TYPICAL REVERSE CHARACTERISTICS

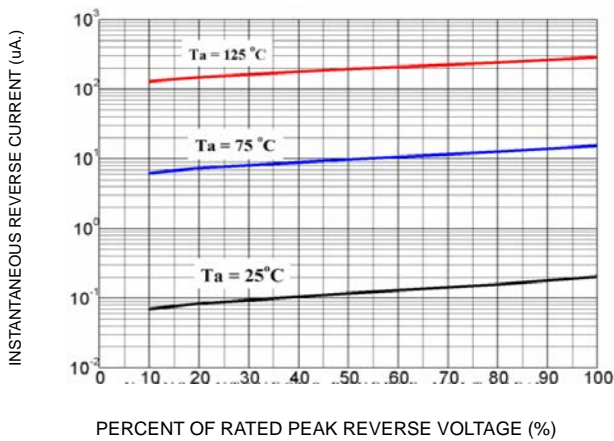


FIG-4 TYPICAL TOTAL CAPACITANCE

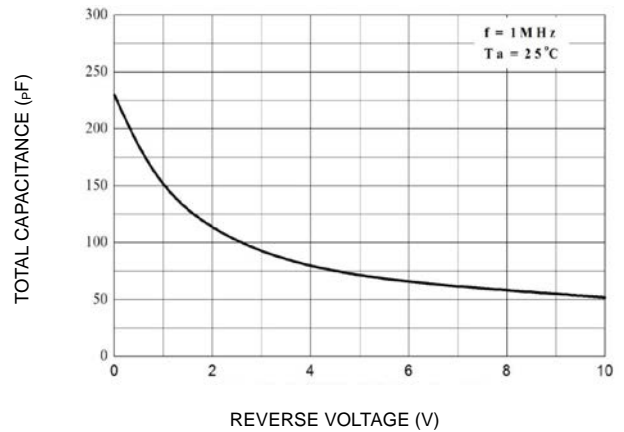
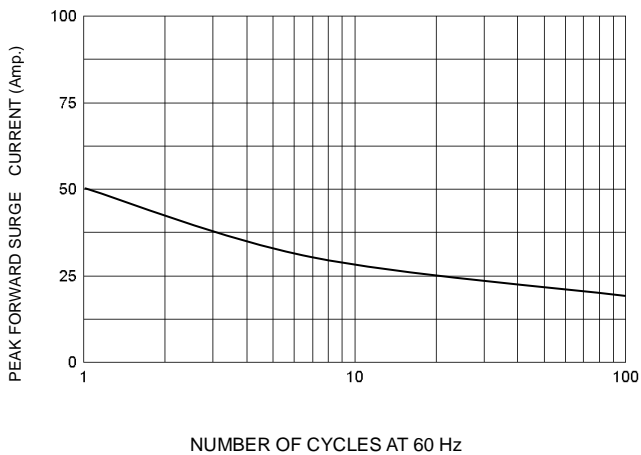


FIG-5 TYPICAL PEAK FORWARD SURGE CURRENT



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