

Switchmode Schottky Barrier Power Rectifiers

Using the Schottky Barrier principle with 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 adapters, Photovoltaic Solar cell protection, free-wheeling and polarity protection diodes.

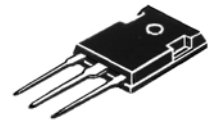
Features

- * Ultra Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Low Power Loss & High efficiency.
- * 150°C Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory
- * ESD: 4KV(Min.) Human-Body Model
- * Flammability Classification 94V-0
- * **Pb free**
- * **In compliance with EU RoHs directives**
- * Mounting Torque: 5 in-lbs.Max.

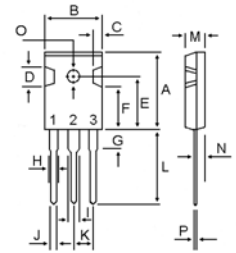


SCHOTTKY BARRIER RECTIFIERS

**60 AMPERES
60VOLTS**



TO-3P



DIM	MILLIMETERS	
	MIN	MAX
A	20.63	22.38
B	15.38	16.20
C	1.90	2.70
D	5.10	6.10
E	14.81	15.22
F	11.72	12.84
G	4.20	4.50
H	1.82	2.46
I	2.92	3.23
J	0.89	1.53
K	5.26	5.66
L	18.50	21.50
M	4.68	5.36
N	2.40	2.80
O	3.25	3.65
P	0.55	0.70

MAXIMUM RATINGS

Characteristic	Symbol	S60D60CL	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	60	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	42	V
Average Rectifier Forward Current (per diode)	$I_{F(AV)}$	30	A
Total Device (Rated V_R),		60	
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	350	A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150	°C

THERMAL RESISTANCES

Typical Thermal Resistance junction to case(per diode)	$R_{\theta jc}$	8.8	°C/w
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ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage (per diode) ($I_F = 0.1$ Amp $T_C = 25^\circ C$) ($I_F = 30.0$ Amp $T_C = 25^\circ C$)	V_F	---	0.25	---	V
		---	0.59	0.63	
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ C$) (Rated DC Voltage, $T_C = 125^\circ C$)	I_R	---	0.20	0.30	mA
		---	60	---	

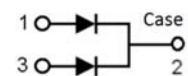


FIG-1 FORWARD CURRENT DERATING CURVE

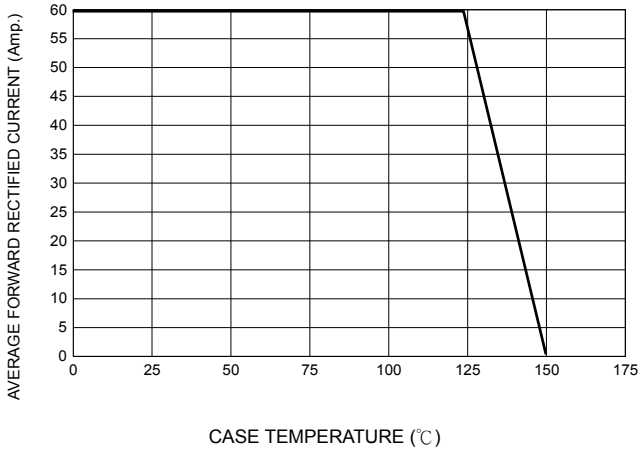


FIG-2 TYPICAL FORWARD CHARACTERISTICS

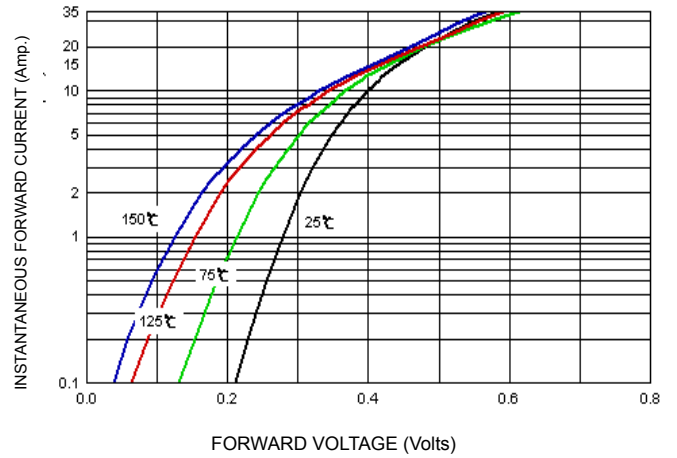


FIG-3 TYPICAL REVERSE CHARACTERISTICS

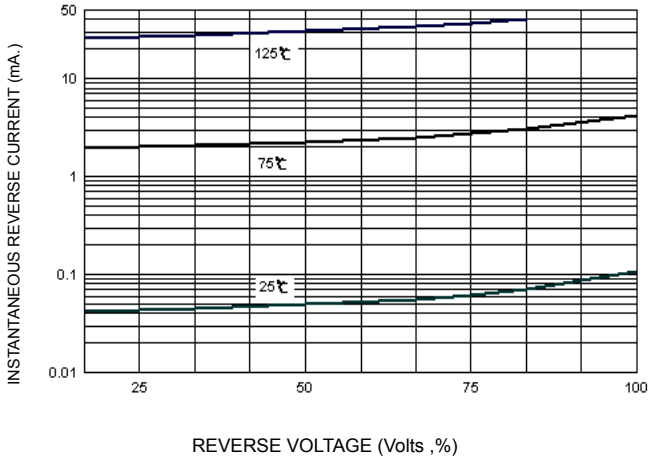


FIG-4 TYPICAL JUNCTION CAPACITANCE

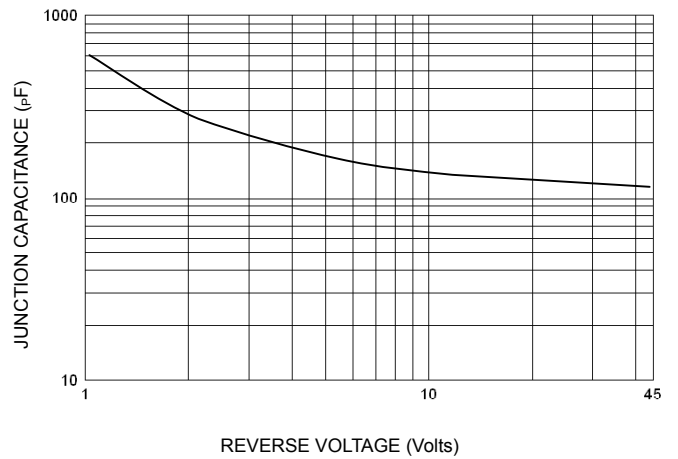
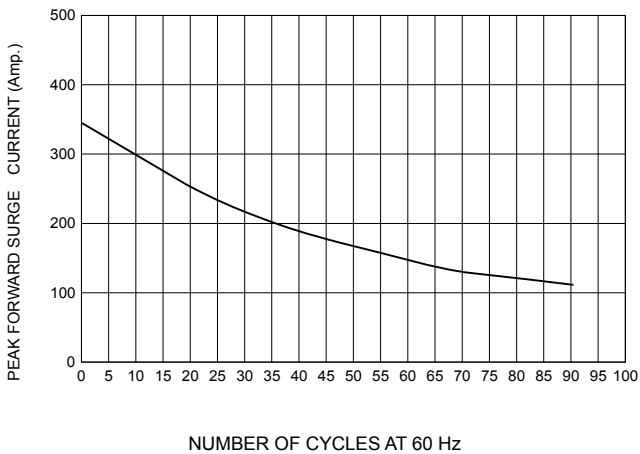


FIG-5 PEAK FORWARD SURGE CURRENT



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