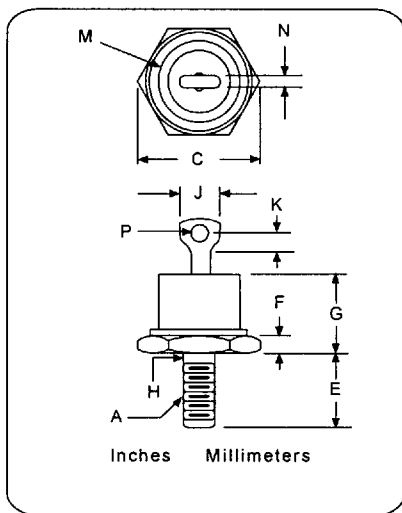




**INTERNATIONAL
SEMICONDUCTOR, INC.**

60 Amp SCHOTTKY POWER RECTIFIER

**SBR6030
thru
SBR6045**



DO-5

Dim	Min	Max	Min	Max	Notes
A	-	-	-	-	1/4-28
B	.677	.687	17.19	17.44	
C	-	.793	-	20.14	
D	-	1.000	-	25.40	
E	.427	.447	10.84	11.35	
F	.115	.200	2.92	5.08	
G	-	.450	-	12.95	
H	.220	.249	5.59	6.32	2
J	-	.375	-	9.52	
K	.156	-	3.97	-	
M	-	.510	-	14.98	Dia
N	-	.080	-	2.03	
P	.140	.175	3.58	4.44	Dia

Note 1: *Standard Polarity - Stud is Cathode
Reverse Polarity - Stud is Anode
Note 2: Full threads within 2 1/2 threads

ISI Part #	Repetitive Peak Reverse Voltage
SBR6030*	30 Volts
SBR6035*	35 Volts
SBR6040*	40 Volts
SBR6045*	45 Volts

*Add Suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- Guard Ring for Reverse Protection
- 60 Amperes/ V_{RRM} 30 thru 45 Volts
- 150°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics

Average Forward Current	$I_{F(AV)}$	60 Amps	$T_C = 89^\circ\text{C}$, Square Wave, $R_{\theta JC} = 1.0^\circ\text{C/W}$ 8.3 ms, Half Wave, $T_J = 175^\circ\text{C}$ $f = 1\text{ KHz}$, 25°C , 1 usec Square Wave $I_{FM} = 60\text{ Amps}$, $T_J = 25^\circ\text{C}^*$ $I_{FM} = 60\text{ Amps}$, $T_J = 125^\circ\text{C}^*$ V_{RRM} , $T_J = 125^\circ\text{C}^*$ V_{RRM} , $T_J = 25^\circ\text{C}$ $V_R = 5.0\text{ Volts}$, $T_J = 25^\circ\text{C}$
Maximum Surge Current	I_{FSM}	1000 Amps	
Max. Repetitive Reverse Current	$I_{R(OV)}$	2 Amps	
Maximum Peak Forward Voltage	V_{FM}	0.60 Volts	
Maximum Peak Forward Voltage	V_{FM}	0.58 Volts	
Maximum Peak Reverse Current	I_{RM}	600 mA	
Maximum Peak Reverse Current	I_{RM}	2.0 mA	
Typical Junction Capacitance	C_J	2700 pf	

*Pulse Test: Pulse width = 300 usec, Duty Cycle = 2%

Thermal And Mechanical Characteristics

Storage Temperature Range	T_{STG}	-65°C to +150°C
Operating Junction Temp. Range	T_J	-65°C to +125°C
Maximum Thermal Resistance	$R_{\theta JC}$	1.0 °C/W Junction to Case
Typical Thermal Resistance	$R_{\theta JC}$	0.9 °C/W Junction to Case
Maximum Mounting Torque		30 inch-pounds maximum
Weight		0.54 ounces (15.3 grams) typical

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SCHOTTKY BARRIER POWER RECTIFIERS

SBR6030 thru SBR6045

RATING AND CHARACTERISTIC CURVES

FIG. 2 - MAXIMUM FORWARD CURRENT DERATING CURVE

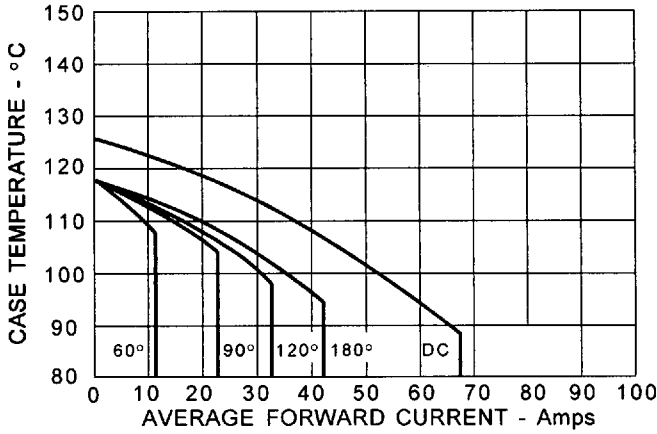


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

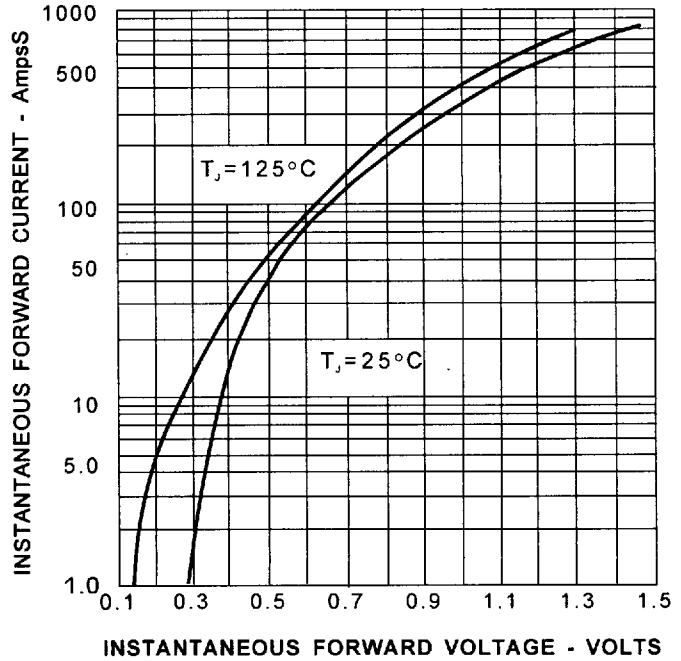


FIG. 3 - MAXIMUM FORWARD POWER DISSIPATION

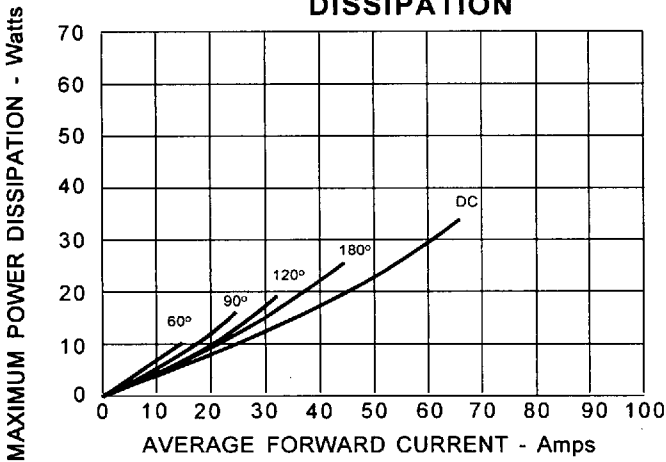


FIG. 6 - TYPICAL REVERSE CHARACTERISTICS

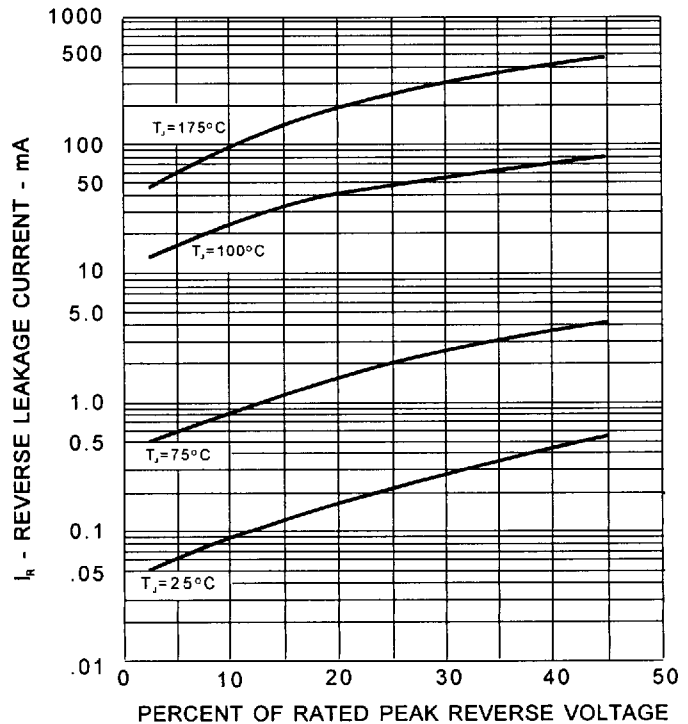
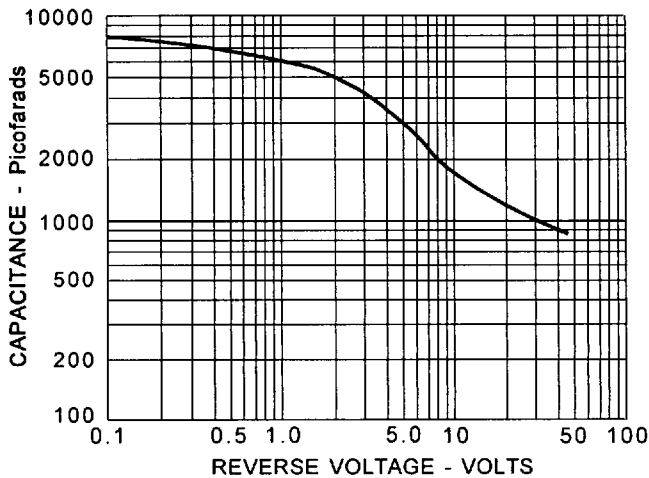


FIG. 4 - TYPICAL JUNCTION CAPACITANCE



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442