

SBYG23MG

SURFACE MOUNT FAST SWITCHING RECTIFIER

VOLTAGE: 1000V

CURRENT: 1.5A



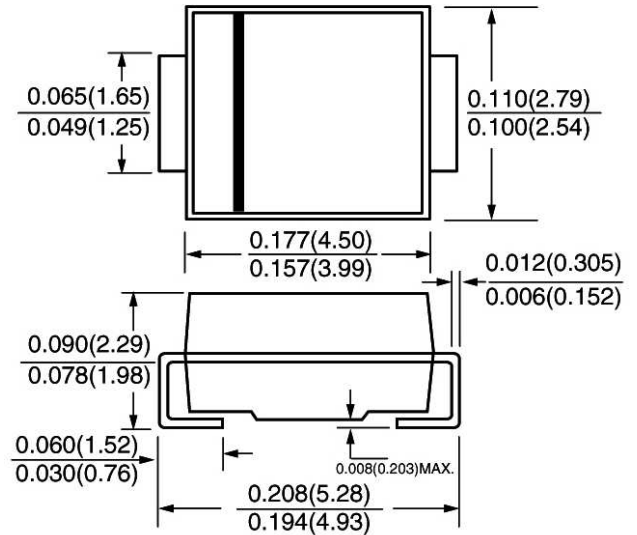
FEATURE

Ideal for surface mount pick and place application
Low profile package
Built-in strain relief
Low reverse current
Soft recovery characteristics
High temperature soldering guaranteed
260°C/10sec/at terminals
Glass passivated chip
Fast reverse recovery time

MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
Case: Molded with UL-94 class V-0 recognized Flame Retardant Epoxy
Polarity: Color band denotes cathode

SMA / DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, date current by 20%)

	SYMBOL	SBYG23MG	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	1000	V
Maximum RMS Voltage	V _{rms}	700	V
Maximum DC blocking Voltage	V _{dc}	1000	V
Reverse Breakdown Voltage at I _R = 100µA	V _{(BR)R}	1000min	V
Maximum Average Forward Rectified	I _{f(av)}	1.5	A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	I _{fsm}	50.0	A
Maximum Instantaneous Forward Voltage at Forward Current 1.0A	V _f	1.7	V
Maximum DC Reverse Current at rated DC blocking voltage	I _r	5.0 50.0	µA
Maximum Reverse Recovery Time	T _{rr}	75	nS
Pulse energy in avalanche mode, non repetitive(inductive load switch off)	E _{rs}	20	mJ
Typical Thermal Resistance	R _{th(jl)} R _{th(ja)}	25.0 150	K/W
Storage and Operating Junction Temperature	T _{stg} , T _j	-50 to +150	°C

Note:

1. Reverse Recovery Condition I_f=0.5A, I_r=1.0A, I_{rr}=0.25A
2. I_{(BR)R}=1.0A, T_j=25°C
3. T_L=const.
4. Thermal Resistance from Junction to terminal mounted on epoxy-glass hard tissue, 17mm² 35 µ m Cu

RATINGS AND CHARACTERISTIC CURVES SBYG23MG

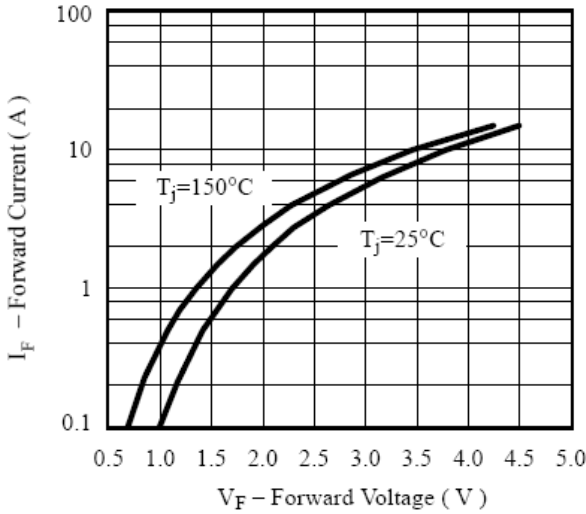


Figure 1. Max. Forward Current vs. Forward Voltage

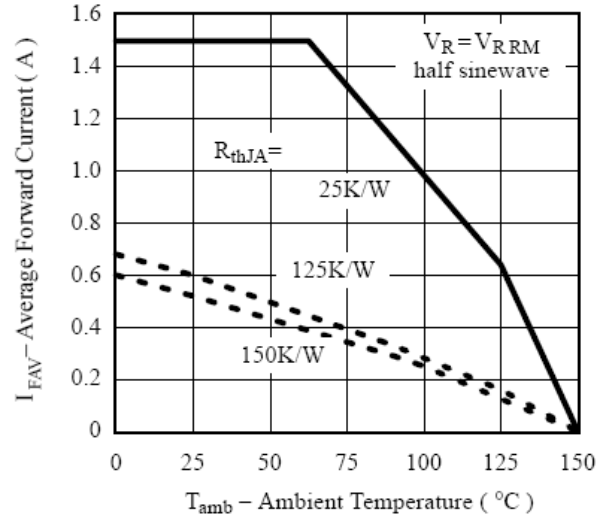


Figure 2. Max. Average Forward Current vs. Ambient Temperature

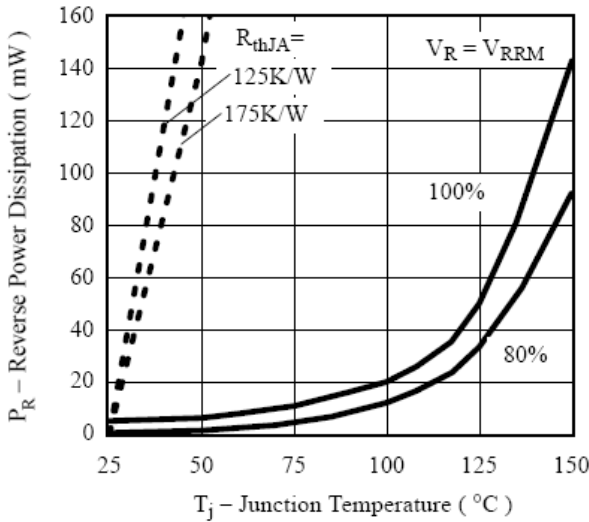


Figure 3. Max. Reverse Power Dissipation vs. Junction Temperature

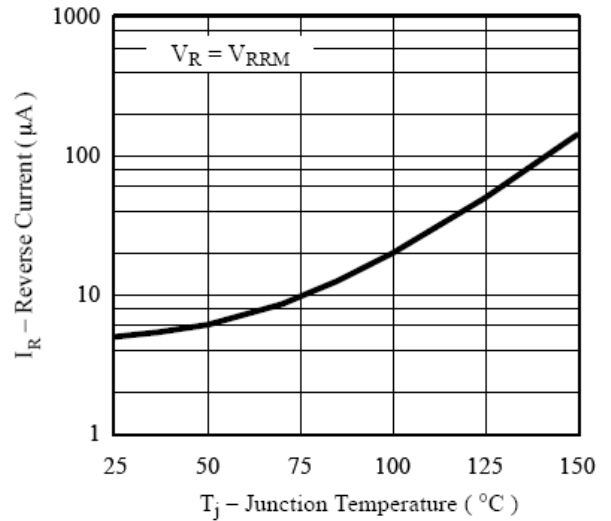


Figure 4. Max. Reverse Current vs. Junction Temperature

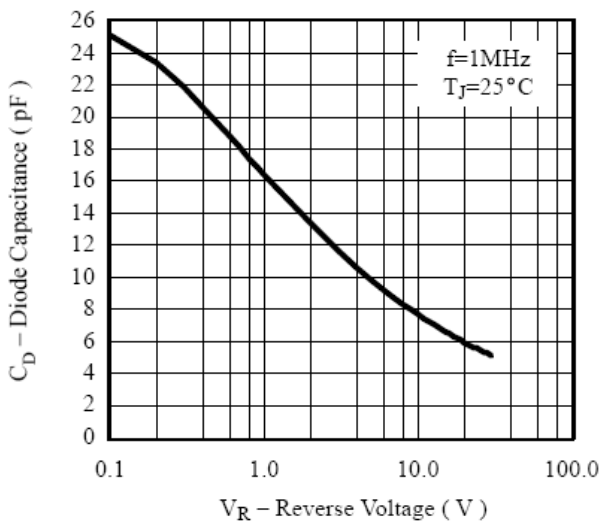


Figure 5. Typ. Diode Capacitance vs. Reverse Voltage