

# SBYG10DG THRU SBYG10MG

## SURFACE MOUNT FAST SWITCHING RECTIFIER

VOLTAGE: 200V to 1000V

CURRENT: 1.5A

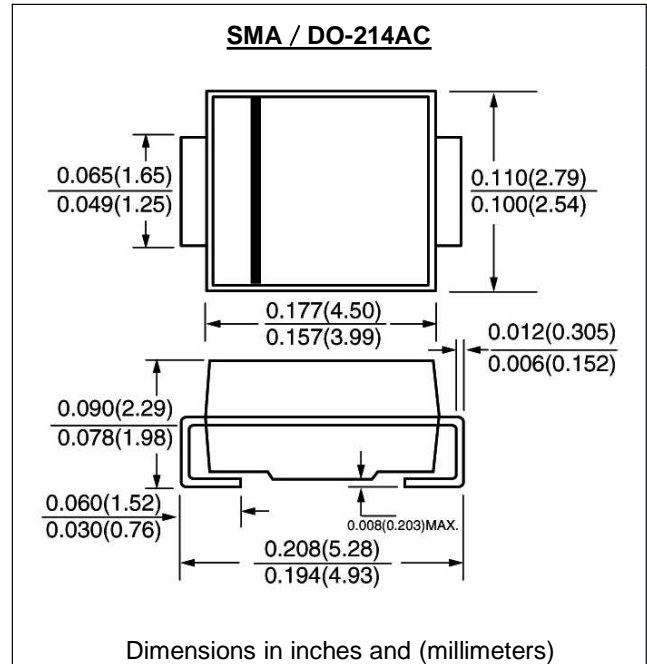


### FEATURE

For surface mounted application  
 High surge current capability  
 Glass passivated chip  
 High temperature soldering guaranteed  
 260°C/10sec/at terminals

### MECHANICAL DATA

Terminal: Plated Terminal, solderable per MIL-STD 202E, method 208C  
 Case: Molded with UL-94 class V-0 recognized Flame Retardant Epoxy  
 Polarity: color band denotes cathode end  
 Marking: **G10D G10G G10J G10K G10M**



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbol	SBYG10 DG	SBYG10 GG	SBYG10 JG	SBYG10 KG	SBYG10 MG	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>rms</sub>	140	280	420	560	700	V
Maximum DC blocking Voltage	V <sub>dc</sub>	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I <sub>f(av)</sub>	1.5					A
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	30					A
Maximum Forward Voltage at rated Forward current T <sub>a</sub> =25°C	V <sub>f</sub>	1.15					V
Pulse energy in avalanche mode, non repetitive (inductive load switch off) at I <sub>(BR)R</sub> =1A	E <sub>r</sub>	20					mJ
Maximum DC Reverse Current at rated DC blocking voltage T <sub>a</sub> =25°C T <sub>a</sub> =125°C	I <sub>r</sub>	1.0 40.0					μA
Typical Thermal Resistance (Note 1) (Note 2)	R <sub>th(jl)</sub> R <sub>th(ja)</sub>	25 150					K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	-50 to +150					°C

Note:

1. T<sub>L</sub>=const
2. mounted on epoxy-glass hard tissue

Rev.A2

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RATINGS AND CHARACTERISTIC CURVES SBYG10DG THRU SBYG10MG

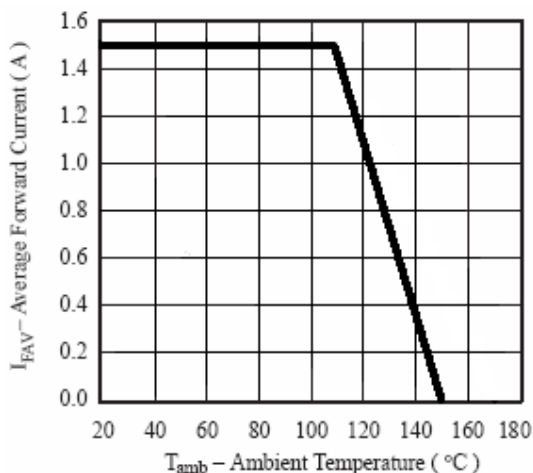


Figure 1. Max. Average Forward Current

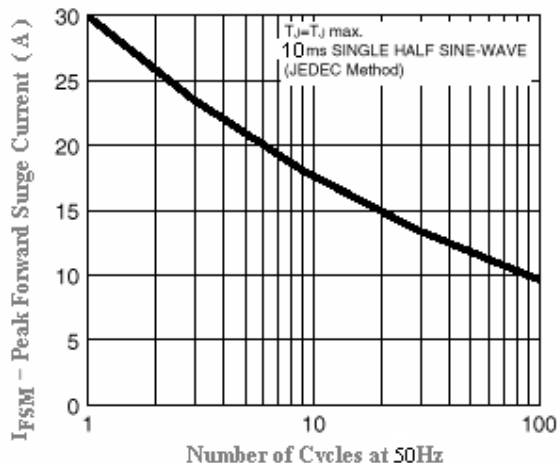


Figure 2. Max. Non-Repetitive Peak Forward Surge Current

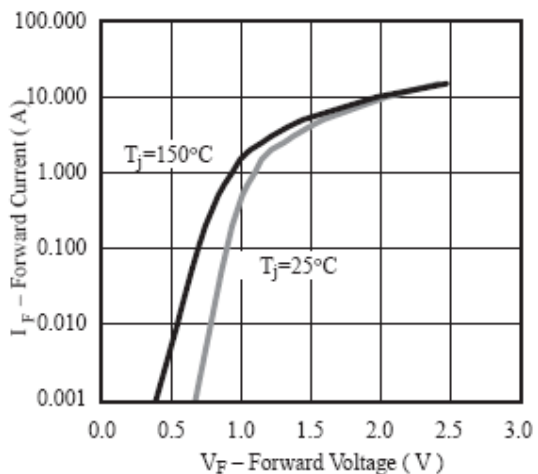


Figure 3. Forward Current

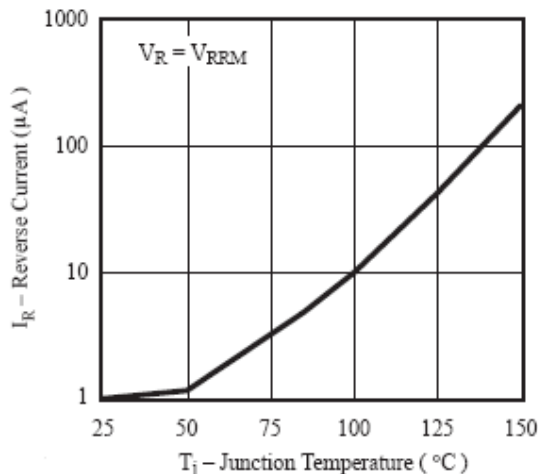


Figure 4. Reverse Current

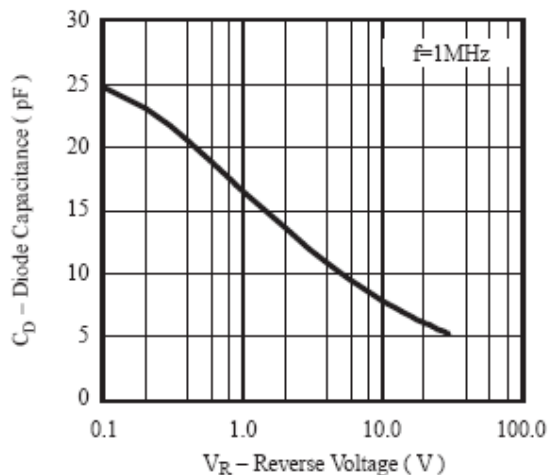


Figure 5. Diode Capacitance