

SBYG20DG THRU SBYG20JG

SURFACE MOUNT FAST SWITCHING RECTIFIER

VOLTAGE: 200 to 600V

CURRENT: 1.5A

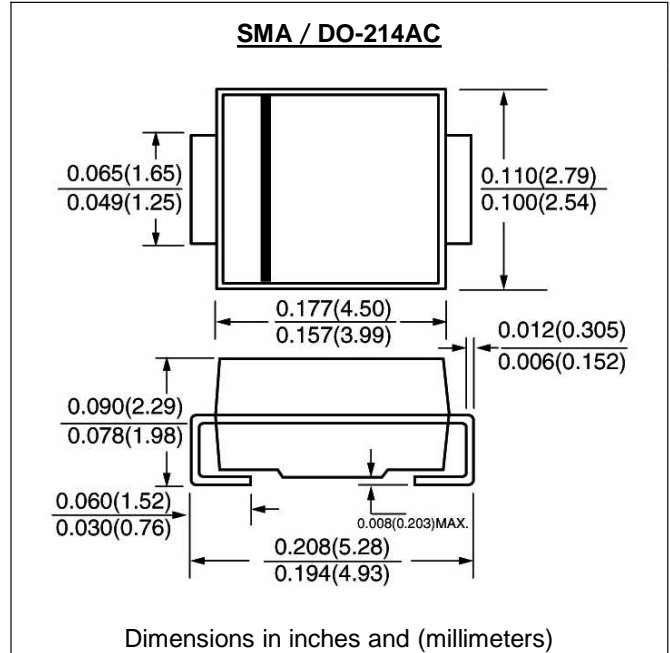


FEATURE

- 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
- Marking: G20D G20G G20J



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	SBYG20DG	SBYG20GG	SBYG20JG	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	200	400	600	V
Maximum RMS Voltage	V _{rms}	140	280	420	V
Maximum DC blocking Voltage	V _{dc}	200	400	600	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 rated forward current	V _f		1.4		V
Maximum DC Reverse Current at rated DC blocking voltage	I _r		1.0 10.0		μA
Maximum Reverse Recovery Time	T _{rr}		75		nS
Pulse energy in avalanche mode, non repetitive(inductive load switch off)	E _{rrm}		20		mJ
Typical Thermal Resistance	R _{th(jl)} R _{th(ja)}		25.0 150		K/W
Storage and Operating Junction Temperature	T _{stg, Tj}		-50 to +150		°C

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- I_{(BR)R}=1.0A, T_j=25°C
- TL=const.
- Thermal Resistance from Junction to terminal mounted on epoxy-glass hard tissue

RATINGS AND CHARACTERISTIC CURVES SBYG20DG THRU SBYG20JG

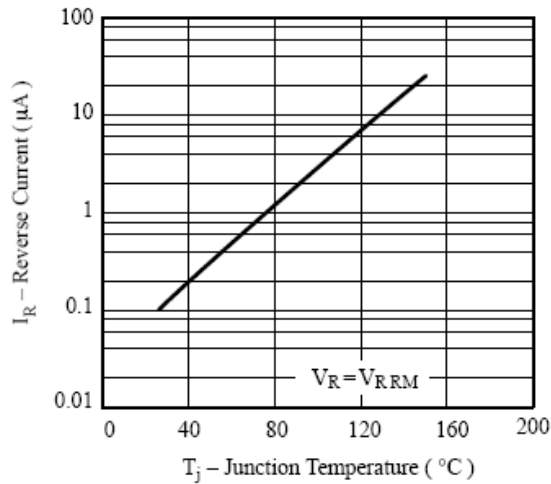


Figure 1. Typ. Reverse Current vs. Junction Temperature

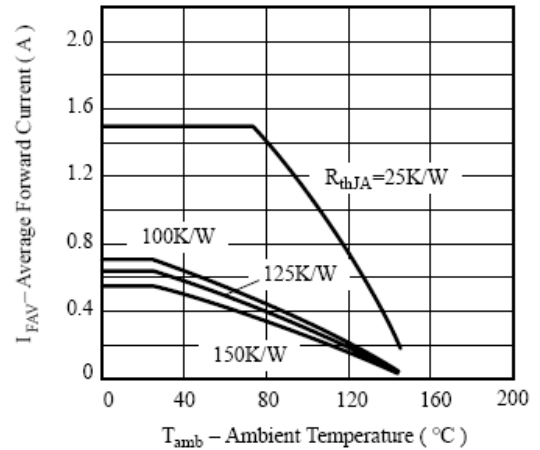


Figure 2. Max. Average Forward Current vs. Ambient Temperature

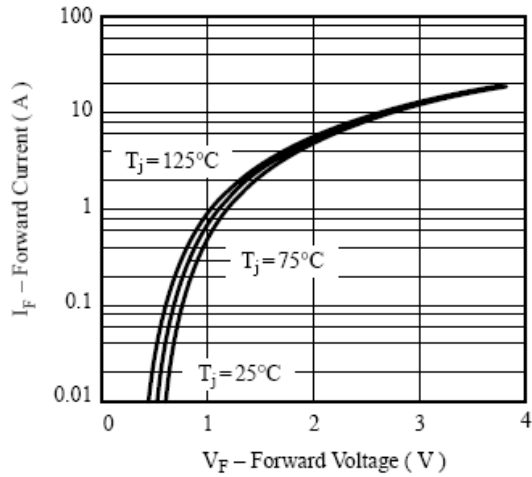


Figure 3. Max. Forward Current vs. Forward Voltage

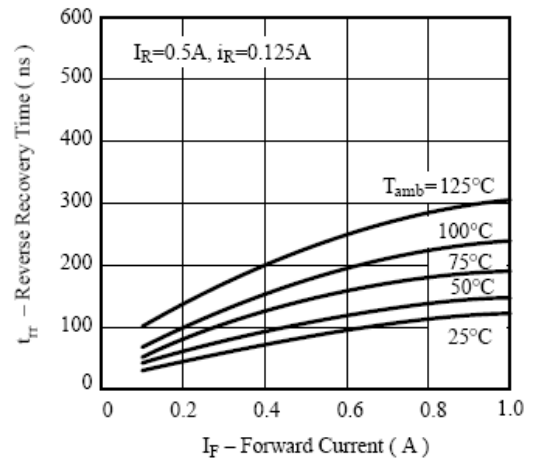


Figure 4. Max. Reverse Recovery Time vs. Forward Current

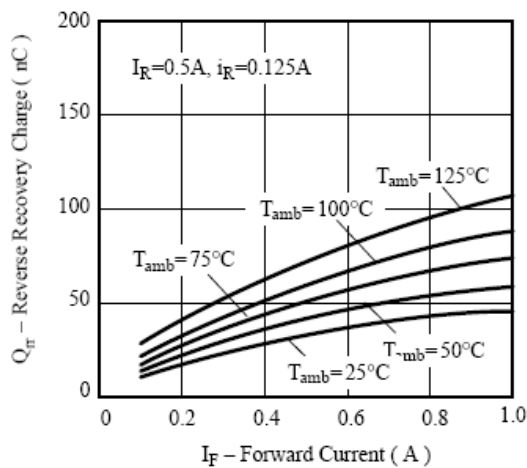


Figure 5. Max. Reverse Recovery Charge vs. Forward Current