

### ULTRA FAST SMD RECTIFIERS

**VOLTAGE RANGE: 200 -- 600V**  
**CURRENT: 1.5 A**

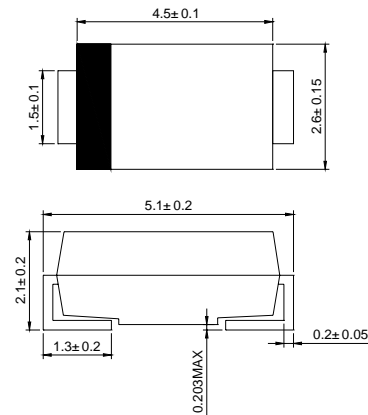
#### FEATURES

- For surface mounted applications
- Glass passivated junction
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

#### MECHANICAL DATA

- Case: JEDEC SMA, molded plastic
- Terminals: Solder plated, solderable per MIL- STD-202, Method 208
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounces, 0.064 grams
- Mounting position: Any

SMA



Dimensions in millimeters

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 50 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		BYG20D	BYG20G	BYG20J	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
Average forward rectified current	$I_{F(AV)}$	1.5			A
Peak forward surge current 10 ms single half-sine-wave superimposed on rated load	$I_{FSM}$	30			A
Maximum instantaneous forward voltage @ 1.0 A @ 1.5 A	$V_F$	1.3 1.4			V
Maximum reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=100$	$I_R$	1.0 10			$\mu A$
Reverse recovery time (Note1)	$t_{rr}$	75			ns
Typical thermal resistance (Note2)	$R_{thJL}$	25			K/W
Typical thermal resistance (Note3)	$R_{thJA}$	125			K/W
Operating temperature range	$T_j$	- 55 -- +150			
Storage temperature range	$T_{STG}$	- 55 -- +150			

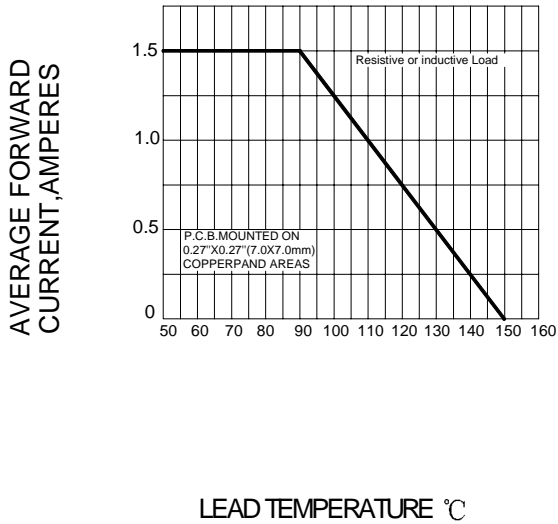
NOTE: 1. Reverse recovery test conditions:  $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$ .

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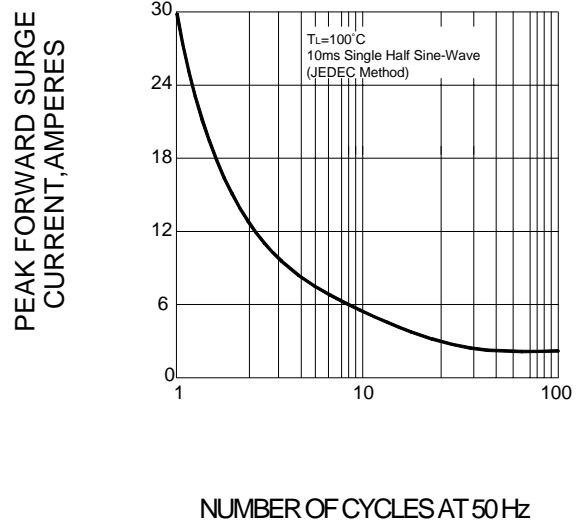
2. Thermal resistance from junction to lead.

3. Thermal resistance from junction to ambient, mounted on epoxy-glass hard tissue,  $50mm^2$  35 $\mu m$  Cu.

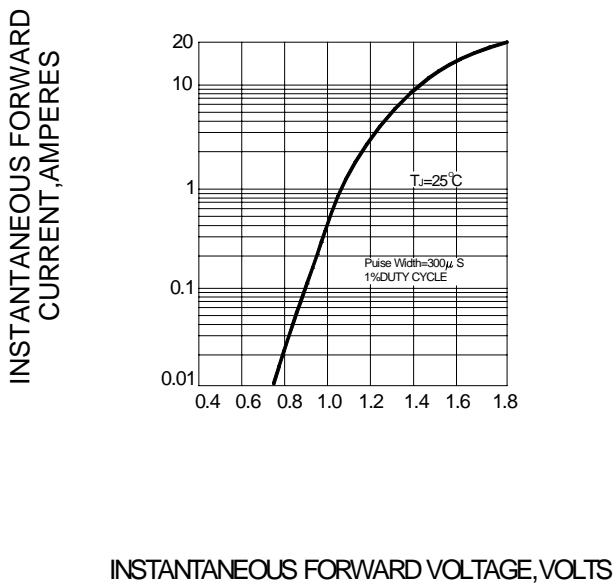
**FIG.1 – FORWARD DERATING CURVE**



**FIG.2-PEAK FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**

