

BYG20D - BYG20J

ULTRAFAST AVALANCHE RECTIFIERS

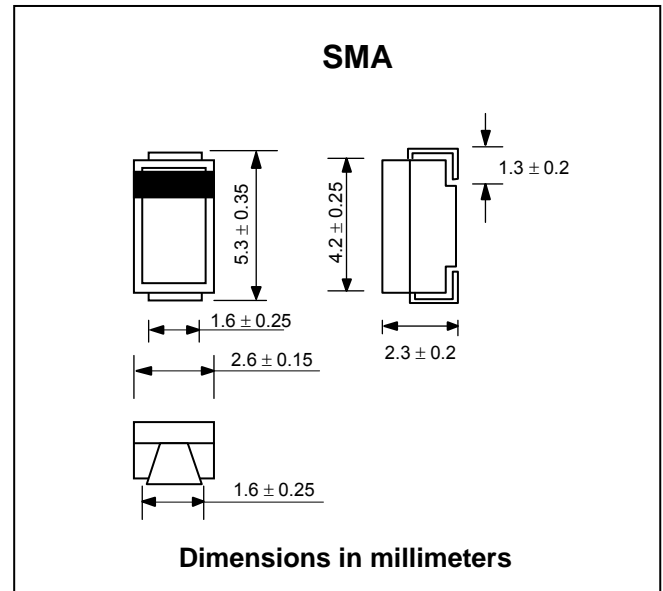
PRV : 200 - 600 Volts
Io : 1.5 Amperes

FEATURES :

- * Glass passivated junction
- * Low profile package
- * Ideal for automated placement
- * Low reverse current
- * Soft recovery characteristics
- * Ultrafast reverse recovery time
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SMA Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.060 gram (Approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise noted

RATING	SYMBOL	BYG20D	BYG20G	BYG20J	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum Average Forward 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⁾	V_F	at $I_F = 1\text{ A}$, $T_j = 25\text{ °C}$			V
		at $I_F = 1.5\text{ A}$, $T_j = 25\text{ °C}$			
Maximum DC Reverse Current	I_R	at $V_R = V_{RRM}$, $T_j = 25\text{ °C}$			μA
		at $V_R = V_{RRM}$, $T_j = 100\text{ °C}$			
Maximum Reverse Recovery Time ($I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$)	T_{rr}	75			ns
Typical Thermal Resistance, Junction to Lead	$R_{\theta JL}$	25			°C/W
Typical Thermal Resistance, Junction to Ambient ⁽²⁾	$R_{\theta JA}$	150			°C/W
Pulse energy in avalanche mode, non repetitive (inductive load switch off) $I_{(BR)R} = 1\text{ A}$, $T_j = 25\text{ °C}$	E_R	20			mJ
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150			°C

Notes :

- (1) Pulse test 300 μs pulse width, 1 % duty cycle
 (2) Mounted on epoxy-glass hard tissue

RATING AND CHARACTERISTIC CURVES (BYG20D - BYG20J)

FIG.1 - MAX. AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

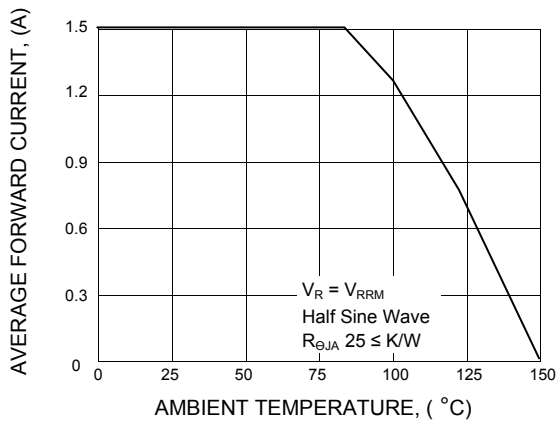


FIG.2 - DIODE CAPACITANCE VS. REVERSE VOLTAGE

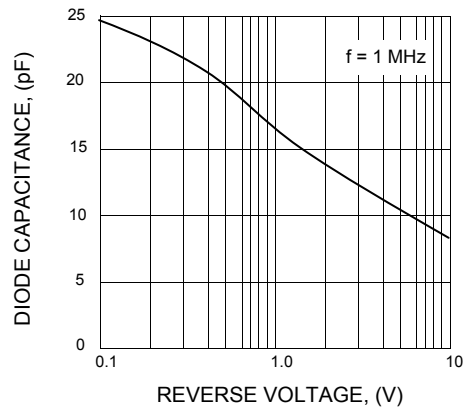


FIG.3 - FORWARD CURRENT VS. FORWARD VOLTAGE

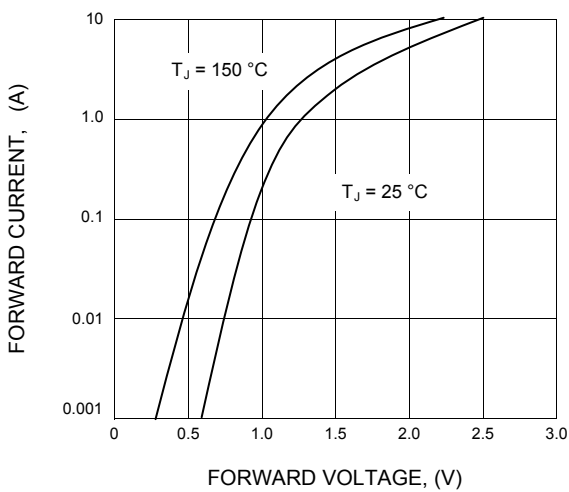


FIG.4 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

