

BYG24D - BYG24J

FAST AVALANCHE RECTIFIERS

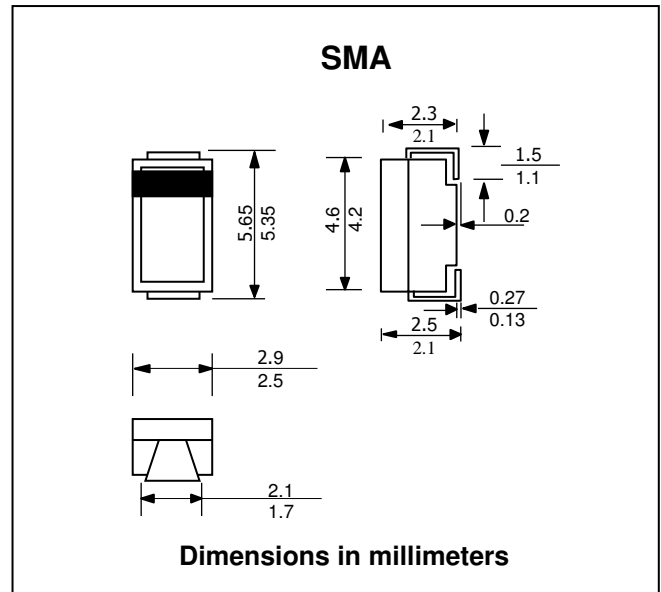
PRV : 200 - 600 Volts
Io : 1.5 Amperes

FEATURES :

- * Glass passivated junction
- * Low profile package
- * Ideal for automated placement
- * Low reverse current
- * Soft recovery characteristics
- * Fast 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	BYG24D	BYG24G	BYG24J	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	V
Minimum Breakdown Voltage at $I_R = 100 \mu A$	$V_{(BR)}$	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	1.15			V
at $I_F = 1 A, T_j = 25 \text{ }^\circ C$		1.25			
Maximum DC Reverse Current	I_R	1.0			μA
	at $V_R = V_{RRM}, T_j = 100 \text{ }^\circ C$	$I_{R(H)}$ 10			
Maximum Reverse Recovery Time ($I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A$)	T_{rr}	140			ns
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	25			$^\circ C/W$
Maximum Thermal Resistance, Junction to Ambient ⁽²⁾	$R_{\theta JA}$	150			$^\circ C/W$
Pulse energy in avalanche mode, non repetitive (inductive load switch off) $I_{(BR)R} = 1A, T_j = 25 \text{ }^\circ C$	E_R	20			mJ
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150			$^\circ C$

Notes :

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Mounted on epoxy-glass hard tissue 35 μm * 17 mm² cooper area per electrode.

RATING AND CHARACTERISTIC CURVES (BYG24D - BYG24J)

FIG.1 - AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

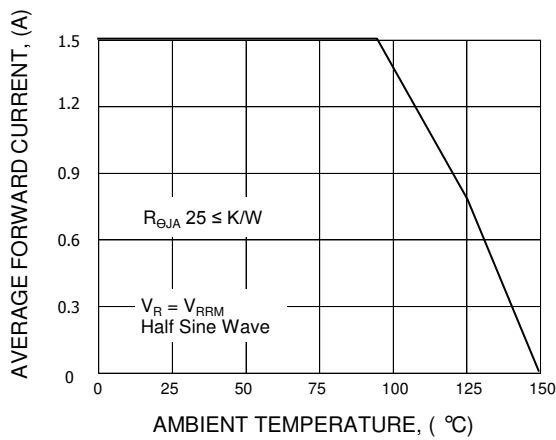


FIG.2 - DIODE CAPACITANCE VS. REVERSE VOLTAGE

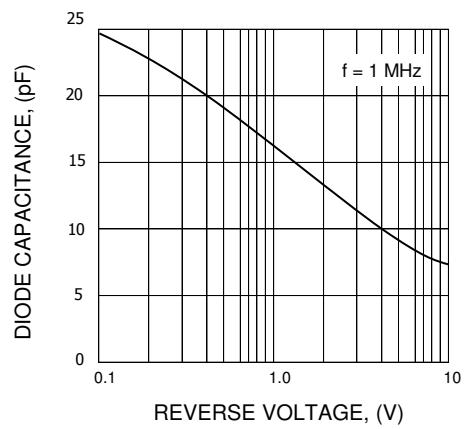


FIG.3 - FORWARD CURRENT VS. FORWARD VOLTAGE

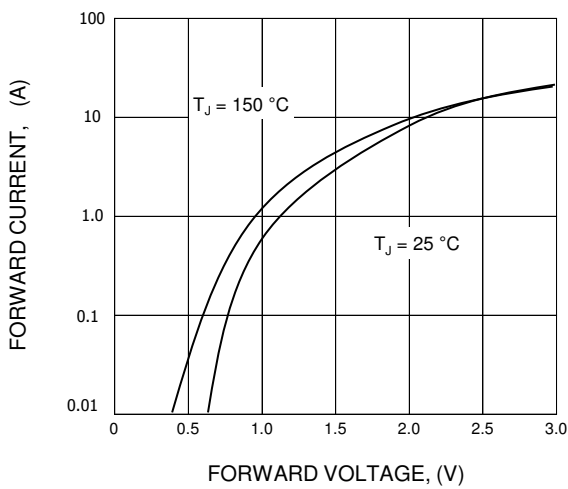


FIG.4 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

