



<b>ELECTRICAL CHARACTERISTICS</b> ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)						
PARAMETER	TEST CONDITIONS		SYMBOL	BYG21K	BYG21M	UNIT
Maximum instantaneous forward voltage	$I_F = 1\text{ A}$	$T_J = 25\text{ }^\circ\text{C}$	$V_F^{(1)}$	1.5		V
	$I_F = 1.5\text{ A}$			1.6		
Maximum reverse current	$V_R = V_{RRM}$	$T_J = 25\text{ }^\circ\text{C}$	$I_R$	1		$\mu\text{A}$
		$T_J = 100\text{ }^\circ\text{C}$		10		
Maximum reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$		$t_{rr}$	120		ns

**Note**

(1) Pulse test: 300  $\mu\text{s}$  pulse width, 1 % duty cycle

<b>THERMAL CHARACTERISTICS</b> ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)				
PARAMETER	SYMBOL	BYG21K	BYG21M	UNIT
Typical thermal resistance, junction to lead, $T_L = \text{const.}$	$R_{\theta JL}$	25		$^\circ\text{C/W}$
Typical thermal resistance, junction to ambient	$R_{\theta JA}^{(1)}$	150		$^\circ\text{C/W}$
	$R_{\theta JA}^{(2)}$	125		
	$R_{\theta JA}^{(3)}$	100		

**Notes**

- (1) Mounted on epoxy-glass hard tissue
- (2) Mounted on epoxy-glass hard tissue, 50 mm<sup>2</sup> 35  $\mu\text{m}$  Cu
- (3) Mounted on Al-oxide-ceramic ( $\text{Al}_2\text{O}_3$ ), 50 mm<sup>2</sup> 35  $\mu\text{m}$  Cu

<b>ORDERING INFORMATION</b> (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
BYG21K-E3/TR	0.064	TR	1800	7" diameter plastic tape and reel
BYG21K-E3/TR3	0.064	TR3	7500	13" diameter plastic tape and reel
BYG21KHE3_A/H <sup>(1)</sup>	0.064	H	1800	7" diameter plastic tape and reel
BYG21KHE3_A/I <sup>(1)</sup>	0.064	I	7500	13" diameter plastic tape and reel
BYG21K-M3/TR	0.064	TR	1800	7" diameter plastic tape and reel
BYG21K-M3/TR3	0.064	TR3	7500	13" diameter plastic tape and reel
BYG21KHM3_A/H <sup>(1)</sup>	0.064	H	1800	7" diameter plastic tape and reel
BYG21KHM3_A/I <sup>(1)</sup>	0.064	I	7500	13" diameter plastic tape and reel

**Note**

(1) AEC-Q101 qualified

**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

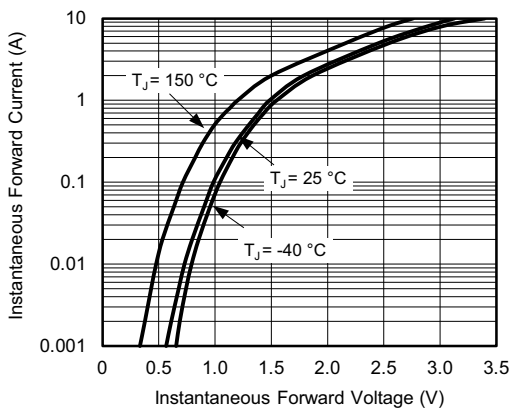


Fig. 1 - Forward Current vs. Forward Voltage

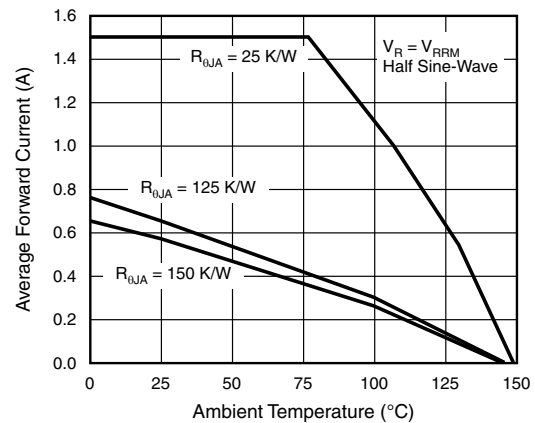


Fig. 2 - Max. Average Forward Current vs. Ambient Temperature

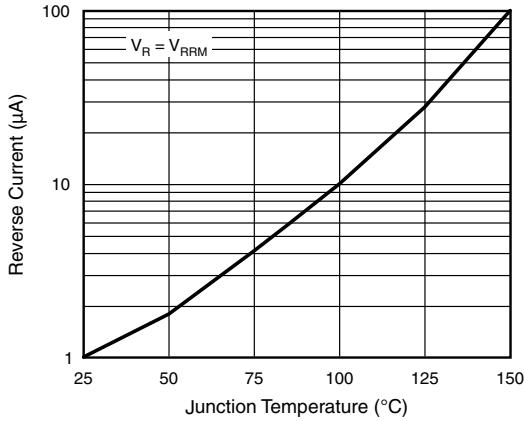


Fig. 3 - Reverse Current vs. Junction Temperature

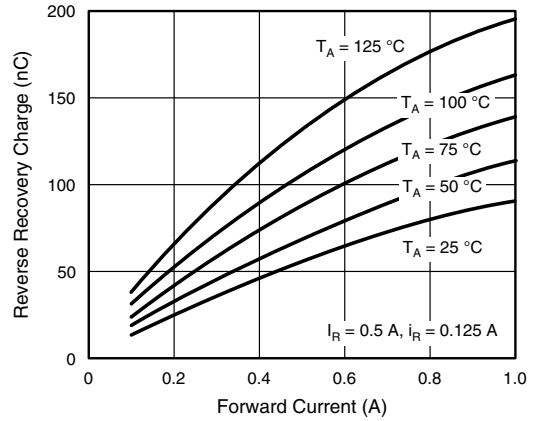


Fig. 6 - Max. Reverse Recovery Charge vs. Forward Current

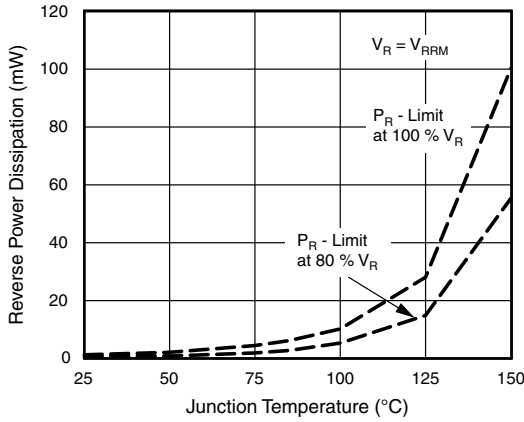


Fig. 4 - Max. Reverse Power Dissipation vs. Junction Temperature

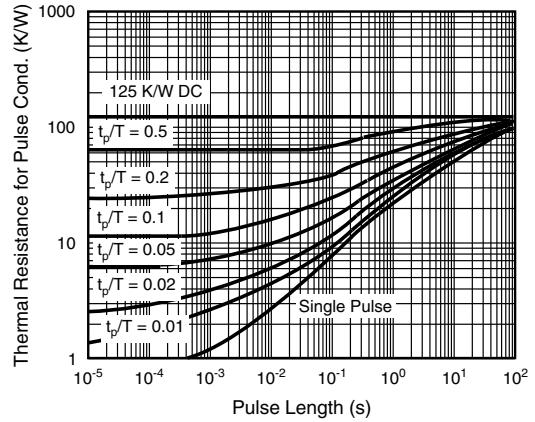


Fig. 7 - Thermal Response

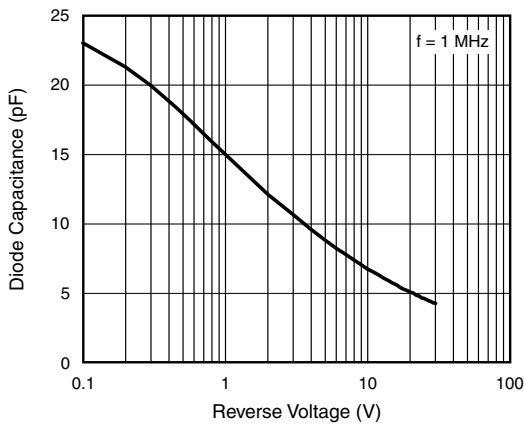
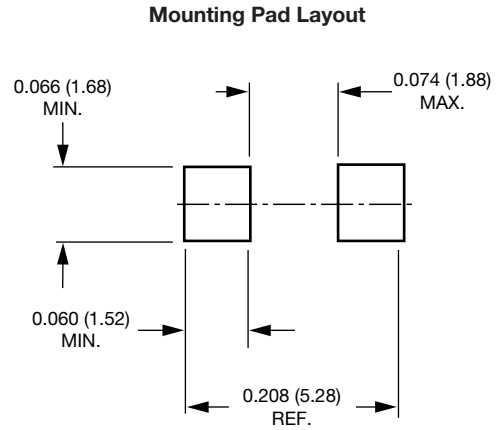
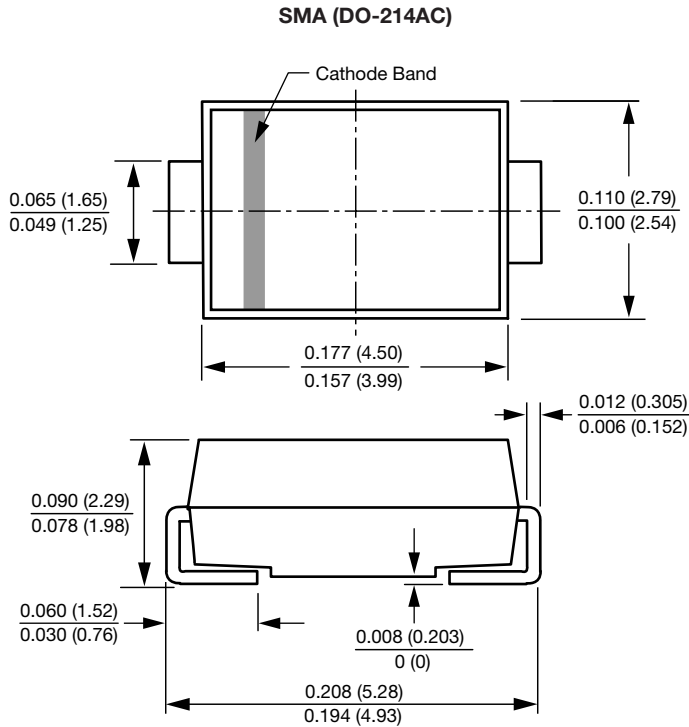


Fig. 5 - Diode Capacitance vs. Reverse Voltage



### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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