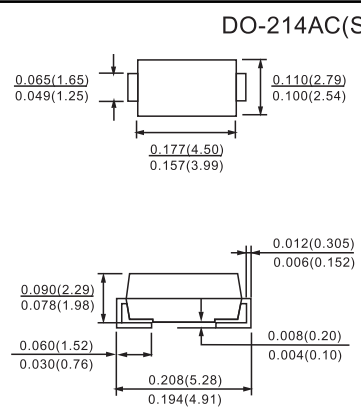




FEATURES

- Glass passivated junction
- Low reverse current
- Soft recovery characteristics
- Fast reverse recovery time
- Wave and reflow solderable



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings

Parameter	Test condition	Part	Symbol	Value	Unit
Reverse voltage = Repetitive peak reverse voltage		BYG 24 D	$V_R = V_{RRM}$	200	V
		BYG 24 G	$V_R = V_{RRM}$	400	V
		BYG 24 J	$V_R = V_{RRM}$	600	V
Peak forward surge current	$t_p = 10$ ms, half-sinewave		I_{FSM}	30	A
Average forward current			I_{FAV}	1.5	A
Junction and storage temperature range			$T_j = T_{stg}$	- 55 to + 150	°C
Pulse energy in avalanche mode, non repetitive (inductive load switch off)	$I_{(BR)R} = 1$ A, $T_j = 25$ °C		E_R	20	mJ

Maximum Thermal Resistance

Parameter	Test condition	Part	Symbol	Value	Unit
Junction case			R_{thJC}	25	K/W
Junction ambient	epoxy glass hard tissue 35 μ m * 17 mm ² cooper area per electrode		R_{thJA}	150	K/W
	epoxy glass hard tissue 35 μ m * 50 mm ² cooper area per electrode		R_{thJA}	125	K/W

Electrical Characteristics

Parameter	Test condition	Part	Symbol	Min	Typ.	Max	Unit
Forward voltage	$I_F = 1$ A		V_F			1.15	V
	$I_F = 1.5$ A		V_F			1.25	V
Reverse current	$V_R = V_{RRM}$		I_R			1	μ A
	$V_R = V_{RRM}$, $T_j = 100$ °C		I_R			10	μ A
Breakdown voltage	$I_R = 100$ μ A	BYG 24 D	$V_{(BR)R}$	200			V
		BYG 24 G	$V_{(BR)R}$	400			V
		BYG 24 J	$V_{(BR)R}$	600			V
Reverse recovery time	$I_F = 0.5$ A; $I_R = 1$ A; $i_R = 0.25$ A		t_{rr}			140	ns



RATINGS AND CHARACTERISTIC CURVES

BYG24D THRU BYG24J

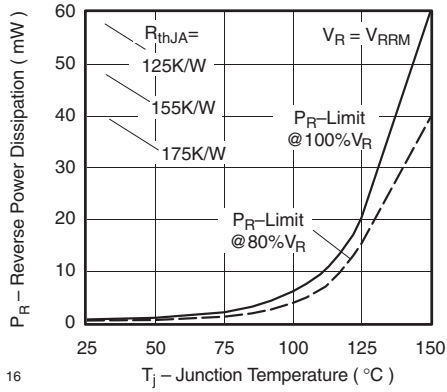


Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature

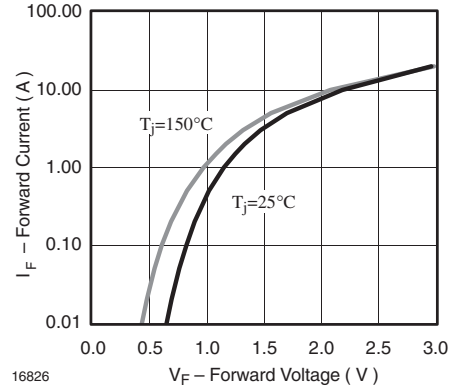


Figure 3. Forward Current vs. Forward Voltage

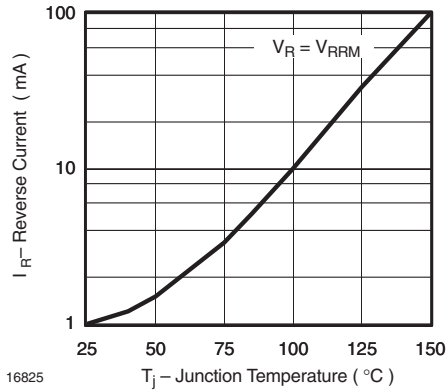


Figure 2. Reverse Current vs. Junction Temperature

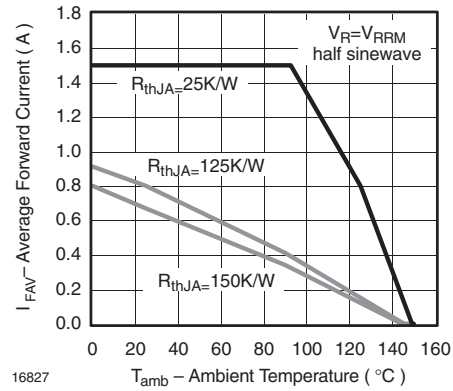


Figure 4. Average Forward Current vs. Ambient Temperature