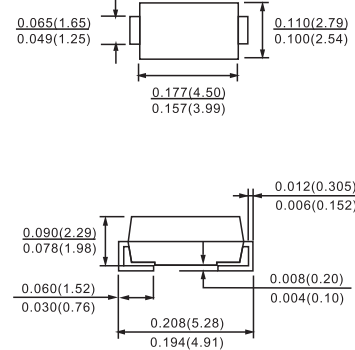


FEATURES

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

DO-214AC(SMA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage =Repetitive peak reverse voltage		BYG20D	$V_R=V_{RRM}$	200	V
		BYG20G	$V_R=V_{RRM}$	400	V
		BYG20J	$V_R=V_{RRM}$	600	V
Peak forward surge current	$t_p=10\text{ms}$, half sinewave		I_{FSM}	30	A
Average forward current			I_{FAV}	1.5	A
Junction and storage temperature range			$T_j=T_{stg}$	-55...+150	°C
Pulse energy in avalanche mode, non repetitive (inductive load switch off)	$I_{(BR)R}=1\text{A}$, $T_j=25^\circ\text{C}$		E_R	20	mJ

Maximum Thermal Resistance

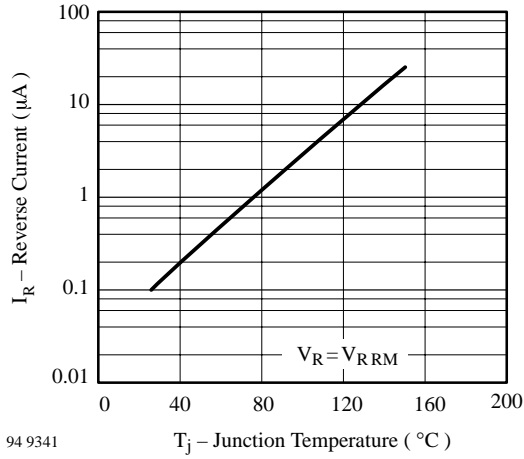
Parameter	Test Conditions	Symbol	Value	Unit
Junction lead	$T_L=\text{const.}$	R_{thJL}	25	K/W
Junction ambient	mounted on epoxy-glass hard tissue	R_{thJA}	150	K/W
	mounted on epoxy-glass hard tissue, 50mm ² 35μm Cu	R_{thJA}	125	K/W
	mounted on Al-oxid-ceramic (Al ₂ O ₃), 50mm ² 35μm Cu	R_{thJA}	100	K/W

Electrical Characteristics

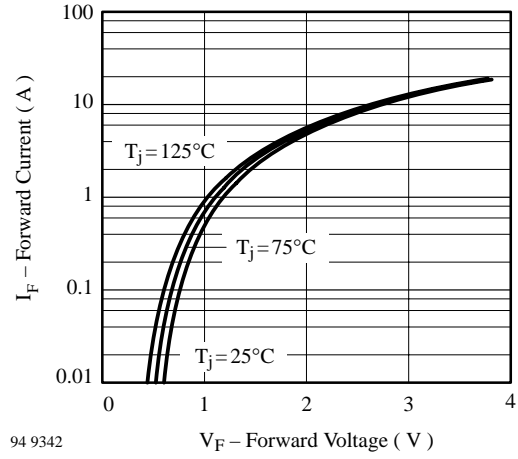
Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=1\text{A}$		V_F			1.3	V
	$I_F=1.5\text{A}$		V_F			1.4	V
Reverse current	$V_R=V_{RRM}$		I_R			1	μA
	$V_R=V_{RRM}$, $T_j=100^\circ\text{C}$		I_R			10	μA
Reverse recovery time	$I_F=0.5\text{A}$, $I_R=1\text{A}$, $i_R=0.25\text{A}$		t_{rr}			75	ns

RATINGS AND CHARACTERISTIC CURVES

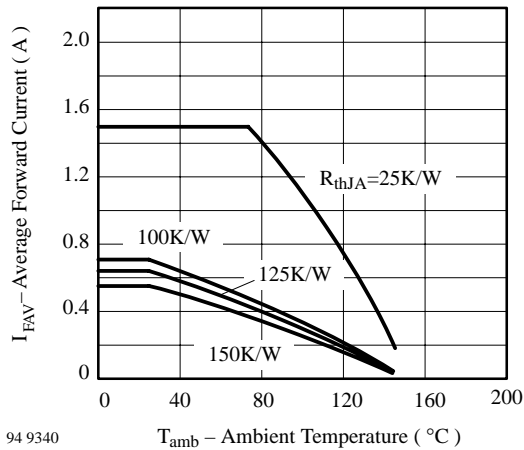
BYG20D THRU BYG20J



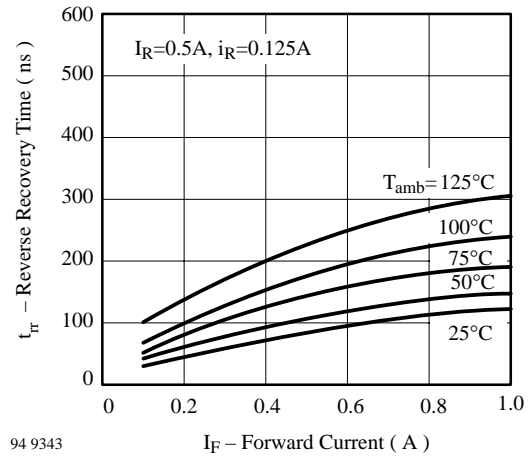
94 9341 Figure 1. Typ. Reverse Current vs. Junction Temperature



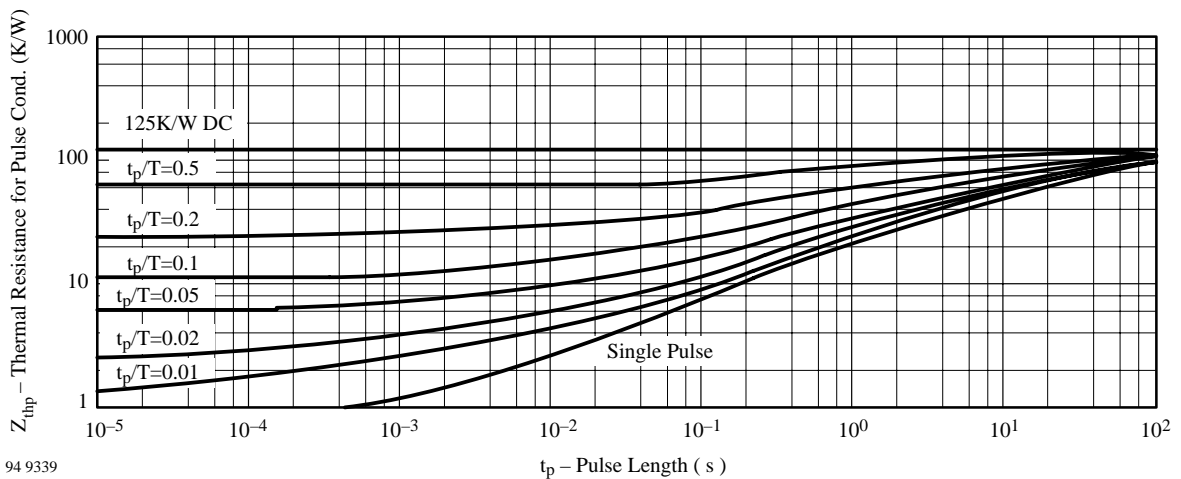
94 9342 Figure 3. Max. Forward Current vs. Forward Voltage



94 9340 Figure 2. Max. Average Forward Current vs. Ambient Temperature



94 9343 Figure 4. Max. Reverse Recovery Time vs. Forward Current



94 9339 Figure 5. Thermal Response