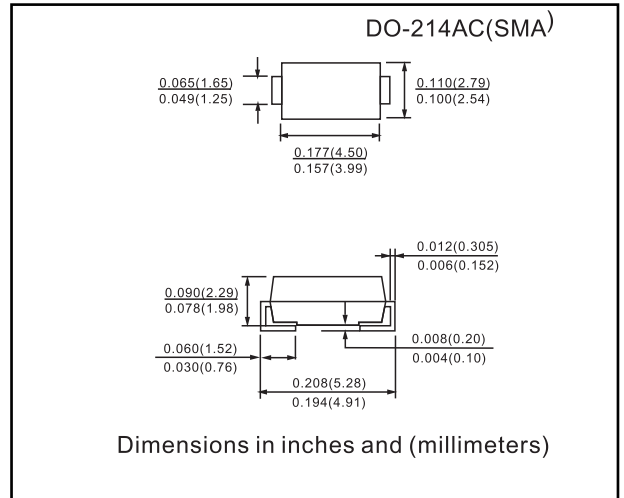




FEATURES

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



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	$t_p=10ms$, 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)	$I_{(BR)R}=1A$, $T_j=25^\circ C$		E_R	20	mJ

Maximum Thermal Resistance

Parameter	Test Conditions	Symbol	Value	Unit
Junction lead	$T_L=const.$	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	$I_F=1A$		V_F			1.3	V
	$I_F=1.5A$		V_F			1.4	V
Reverse current	$V_R=V_{RRM}$		I_R			1	μA
	$V_R=V_{RRM}$, $T_j=100^\circ C$		I_R			10	μA
Reverse recovery time	$I_F=0.5A$, $I_R=1A$, $i_R=0.25A$		t_{rr}			75	ns



RATINGS AND CHARACTERISTIC CURVES

BYG20D THRU BYG20J

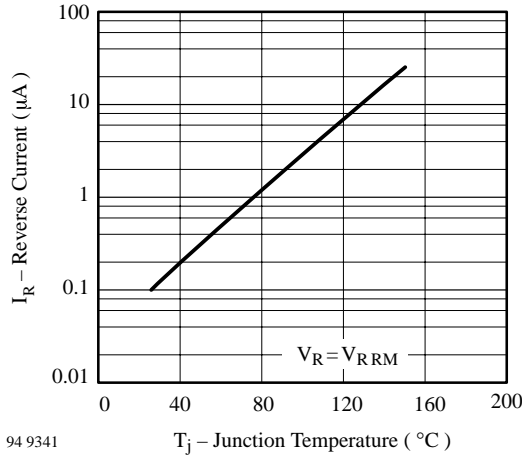


Figure 1. Typ. Reverse Current vs. Junction Temperature

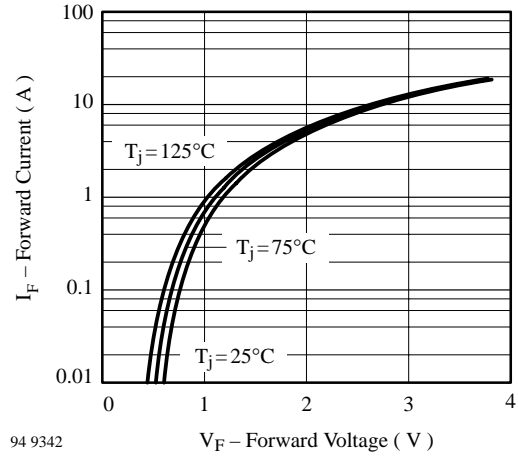


Figure 3. Max. Forward Current vs. Forward Voltage

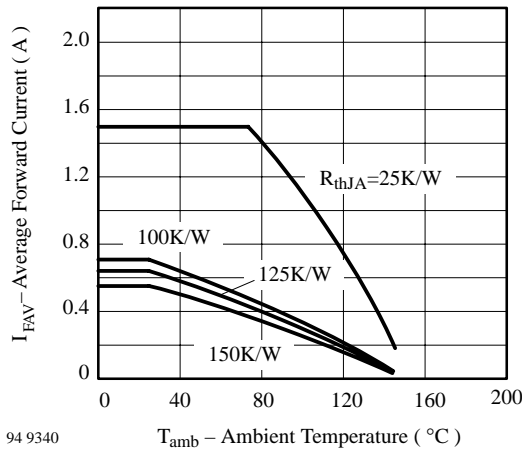


Figure 2. Max. Average Forward Current vs. Ambient Temperature

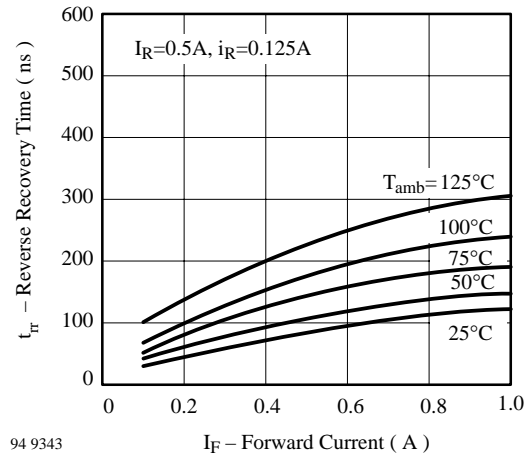


Figure 4. Max. Reverse Recovery Time vs. Forward Current

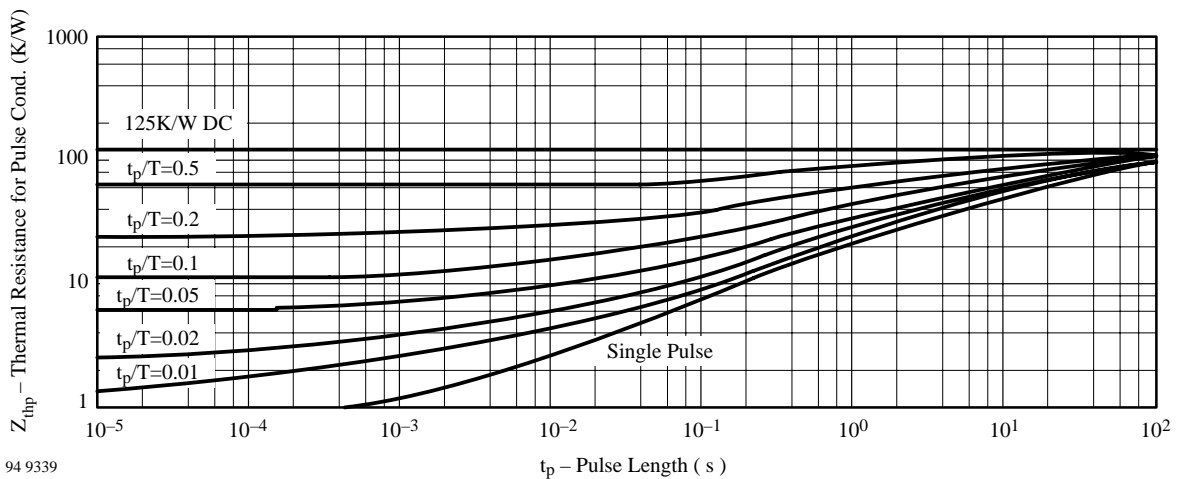


Figure 5. Thermal Response