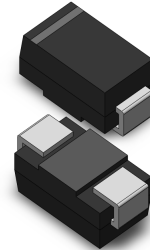


**VOLTAGE RANGE: 800 - 1000V**  
**CURRENT: 1.5 A**

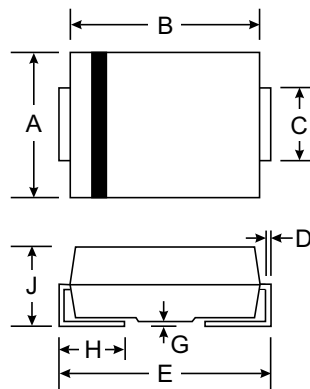


### Features

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

### Mechanical Data

- Case: SMA(DO-214AC), Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Weight: 0.064 grams (approx.)



SMA(DO-214AC)		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		

### Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage =Repetitive peak reverse voltage		BYG21K	$V_R = V_{RRM}$	800	V
		BYG21M	$V_R = V_{RRM}$	1000	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	$^\circ\text{C}$
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 $T_j = 25^\circ\text{C}$

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, $50\text{mm}^2$ $35\mu\text{m}$ Cu	$R_{thJA}$	125	K/W
	mounted on Al-oxid-ceramic ( $\text{Al}_2\text{O}_3$ ), $50\text{mm}^2$ $35\mu\text{m}$ Cu	$R_{thJA}$	100	K/W



## Electrical Characteristics

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=1\text{A}$		$V_F$			1.5	V
	$I_F=1.5\text{A}$		$V_F$			1.6	V
Reverse current	$V_R=V_{RRM}$		$I_R$			1	$\mu\text{A}$
	$V_R=V_{RRM}, T_j=100^\circ\text{C}$		$I_R$			10	$\mu\text{A}$
Reverse recovery time	$I_F=0.5\text{A}, I_R=1\text{A}, i_R=0.25\text{A}$		$t_{rr}$			120	ns

## Characteristics ( $T_j = 25^\circ\text{C}$ unless otherwise specified)

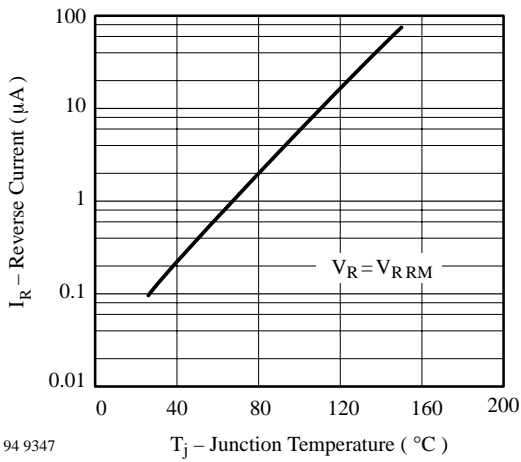


Figure 1. Typ. Reverse Current vs. Junction Temperature

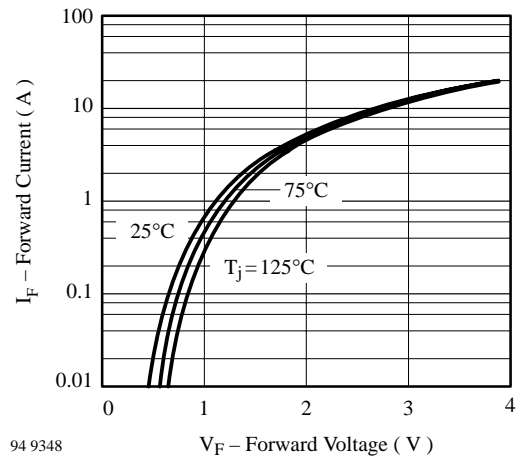


Figure 3. Typ. Forward Current vs. Forward Voltage

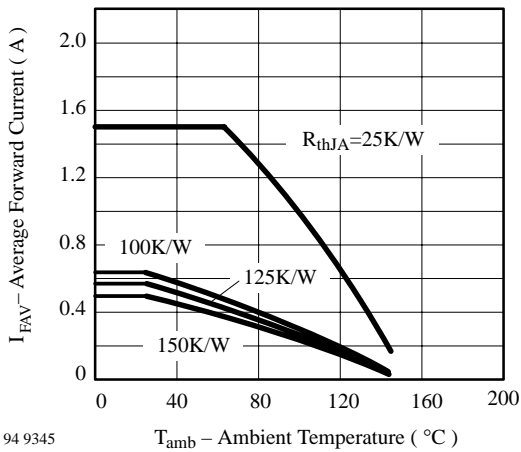


Figure 2. Max. Average Forward Current vs. Ambient Temperature

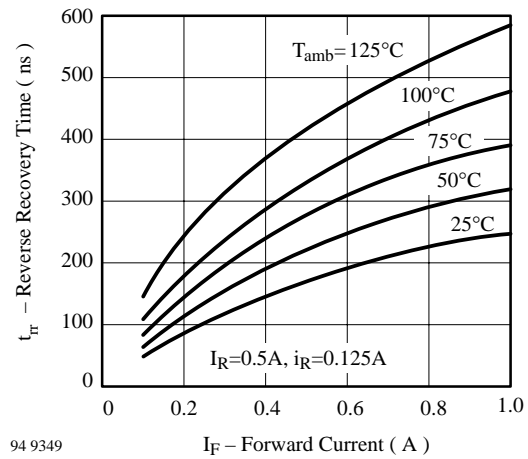


Figure 4. Max. Reverse Recovery Time vs. Forward Current

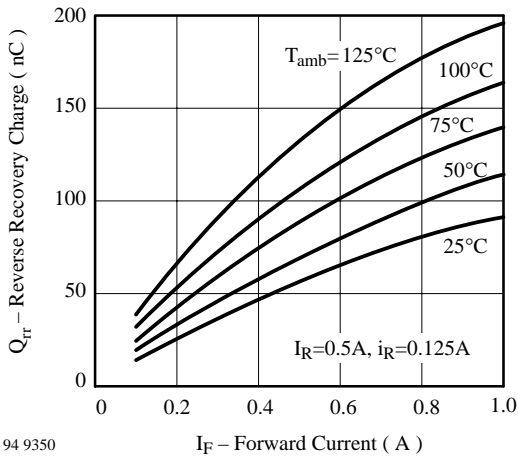


Figure 5. Max. Reverse Recovery Charge vs. Forward Current

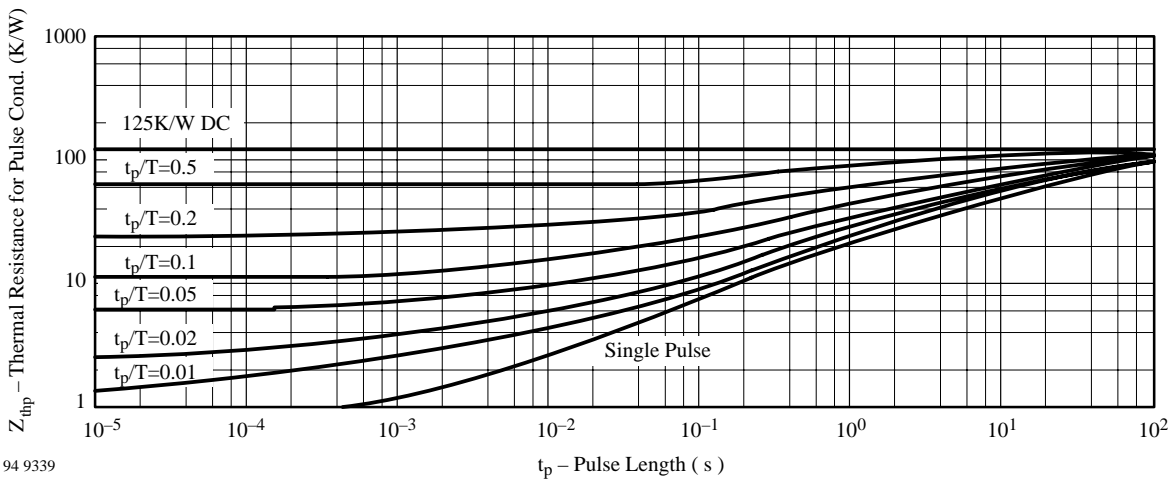


Figure 6. Thermal Response