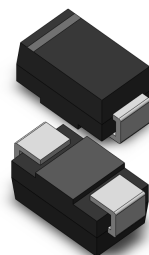


**VOLTAGE RANGE: 50 - 200V**  
**CURRENT: 2.0 A**

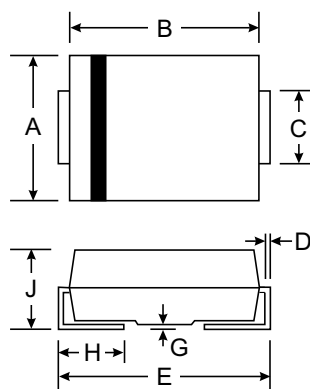


### Features

- Controlled avalanche characteristic
- Glass passivated junction
- Low reverse current
- Low forward voltage
- Soft recovery characteristic
- Very fast reverse recovery time
- Good switching characteristics
- Wave and reflow solderable

### Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- 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<sub>A</sub> = 25°C unless otherwise specified

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage =Repetitive peak reverse voltage		BYG22A	V <sub>R</sub> =V <sub>R</sub> RM	50	V
		BYG22B	V <sub>R</sub> =V <sub>R</sub> RM	100	V
		BYG22D	V <sub>R</sub> =V <sub>R</sub> RM	200	V
Peak forward surge current	t <sub>p</sub> =10ms, half sinewave		I <sub>FSM</sub>	35	A
Average forward current			I <sub>FAV</sub>	2	A
Junction and storage temperature range			T <sub>j</sub> =T <sub>stg</sub>	-55...+150	°C
Pulse energy in avalanche mode, non repetitive (inductive load switch off)	I <sub>(BR)</sub> R=1A, T <sub>j</sub> =25°C		E <sub>R</sub>	20	mJ

Parameter	Test Conditions	Symbol	Value	Unit
Junction lead	T <sub>L</sub> =const.	R <sub>thJL</sub>	25	K/W
Junction ambient	mounted on epoxy-glass hard tissue	R <sub>thJA</sub>	150	K/W
	mounted on epoxy-glass hard tissue, 50mm <sup>2</sup> 35μm Cu	R <sub>thJA</sub>	125	K/W
	mounted on Al-oxid-ceramic (Al <sub>2</sub> O <sub>3</sub> ), 50mm <sup>2</sup> 35μm Cu	R <sub>thJA</sub>	100	K/W

### Electrical Characteristics T = 25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> =1A		V <sub>F</sub>			1	V
	I <sub>F</sub> =2A		V <sub>F</sub>			1.1	V
Reverse current	V <sub>R</sub> =V <sub>R</sub> RM		I <sub>R</sub>			1	μA
	V <sub>R</sub> =V <sub>R</sub> RM, T <sub>j</sub> =100°C		I <sub>R</sub>			10	μA
Reverse recovery time	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, i <sub>R</sub> =0.25A		t <sub>rr</sub>			25	ns

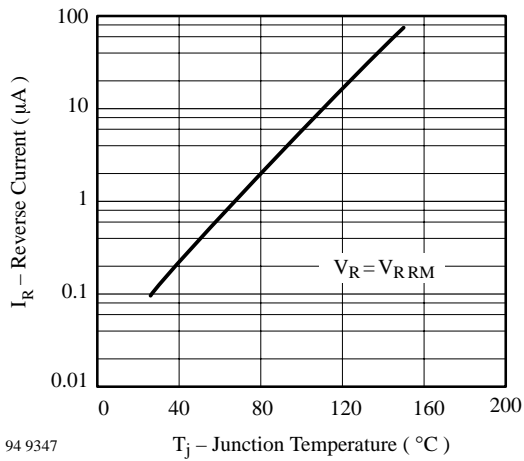


Figure 1. Typ. Reverse Current vs. Junction Temperature

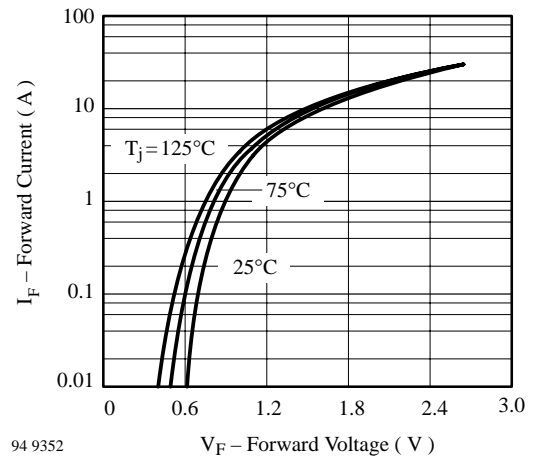


Figure 3. Max. Forward Current vs. Forward Voltage

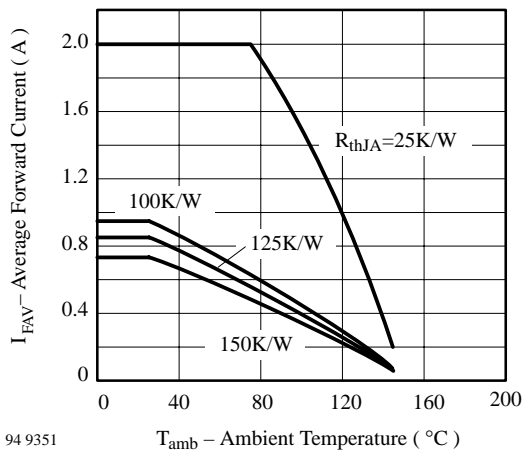


Figure 2. Max. Average Forward Current vs. Ambient Temperature

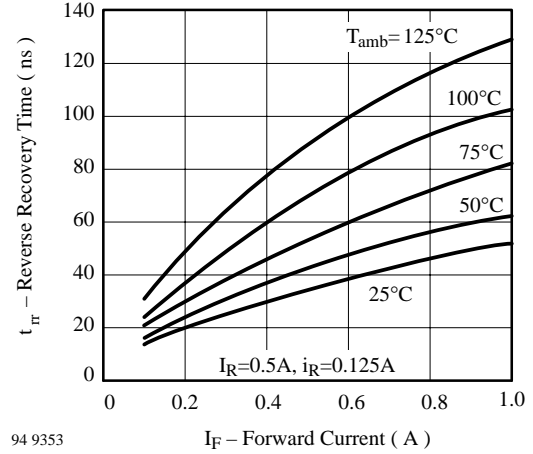


Figure 4. Max. Reverse Recovery Time vs. Forward Current

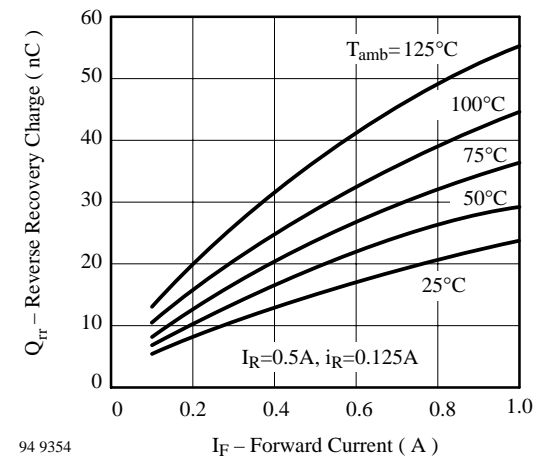


Figure 5. Max. Reverse Recovery Charge vs. Forward Current