DESCRIPTION

The BYG20D_BYG20J are available in SMA package.

FEATURE

- For surface mounted applications
- Ideal for automated placement
- Low forward voltage drop
- High surge current capability

MECHANICAL DATA

- Case: SMA molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end

PIN DESCRIPTION

PIN#	DESCRIPTION
1	CATHODE
2	ANODE

ORDERING INFORMATION

Package Type	Part Number
SMA	BYG20D
	BYG20G
	BYG20J
Note	SPQ: 5,000pcs/Reel
AiT provides all RoHS Compliant Products	

ABSOLUTE MAXIMUM RATINGS

T_a = 25°C, unless otherwise specified

V_{RRM}, Repetitive Peak Reverse Voltage	BYG20D	200V
	BYG20G	400V
	BYG20J	600V
V_{RMS}, RMS Reverse Voltage	BYG20D	140V
	BYG20G	280V
	BYG20J	420V
V_{DC}, DC blocking voltage	BYG20D	200V
	BYG20G	400V
	BYG20J	600V
$I_{F(AV)}$, Maximum Average Forward Output Current		1.5A
I_{FSM}, Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave		30A
$R_{\theta JA}$, Typical Thermal Resistance *		70℃/W
$R_{\theta JC}$, Typical Thermal Resistance *		25℃/W
$R_{\theta JL}$, Typical Thermal Resistance *		30℃/W
T_{STG}, Storage Temperature Range		-55℃ ~ + 150℃
T_J, Operating Temperature		-55℃ ~ + 150℃

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

*Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

ELECTRICAL CHARACTERISTICS

T_A=25℃ unless otherwise specified.

Parameter	Symbols	Conditions		Min.	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage	V_F	I_F = 1A	T_A=25°C	-	-	1.3	V
		I_F = 1.5A		-	-	1.4	
Maximum Reverse Current	I_R	Rated V_R	T_A=25°C	-	-	1	μA
			T_A=125°C	-	-	200	
Reverse Recovery Time	t_{rr}	I_F = 0.5A, I_{RM} = 1A $I_{R(REC)}$ = 0.25A		-	-	75	ns

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Forward Current Derating Curve

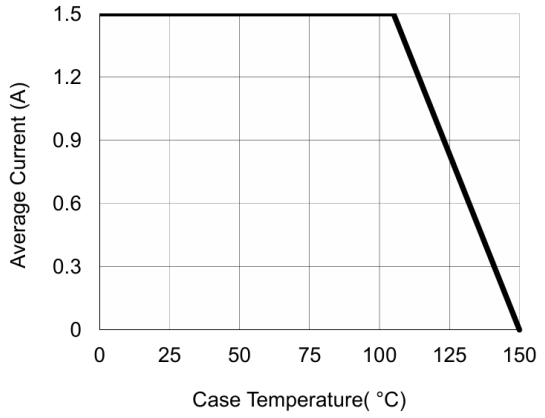


Fig 2. Surge Current Derating Curve

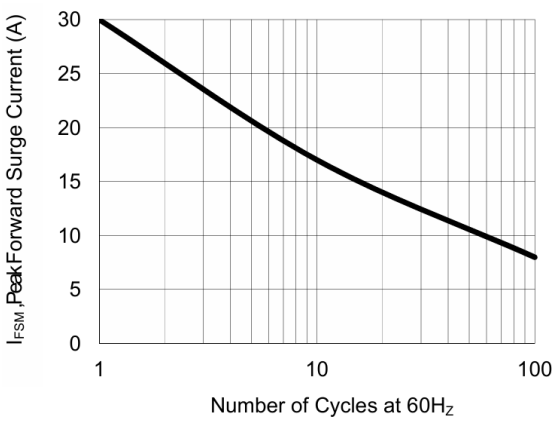


Fig 3. Typical Forward Voltage Characteristics

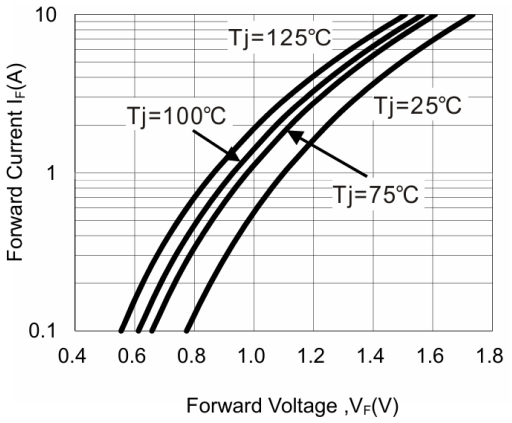
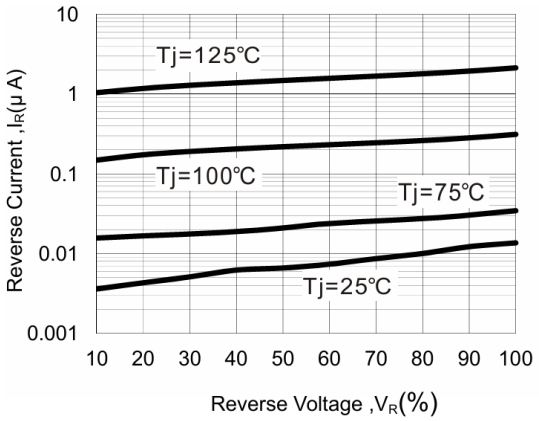
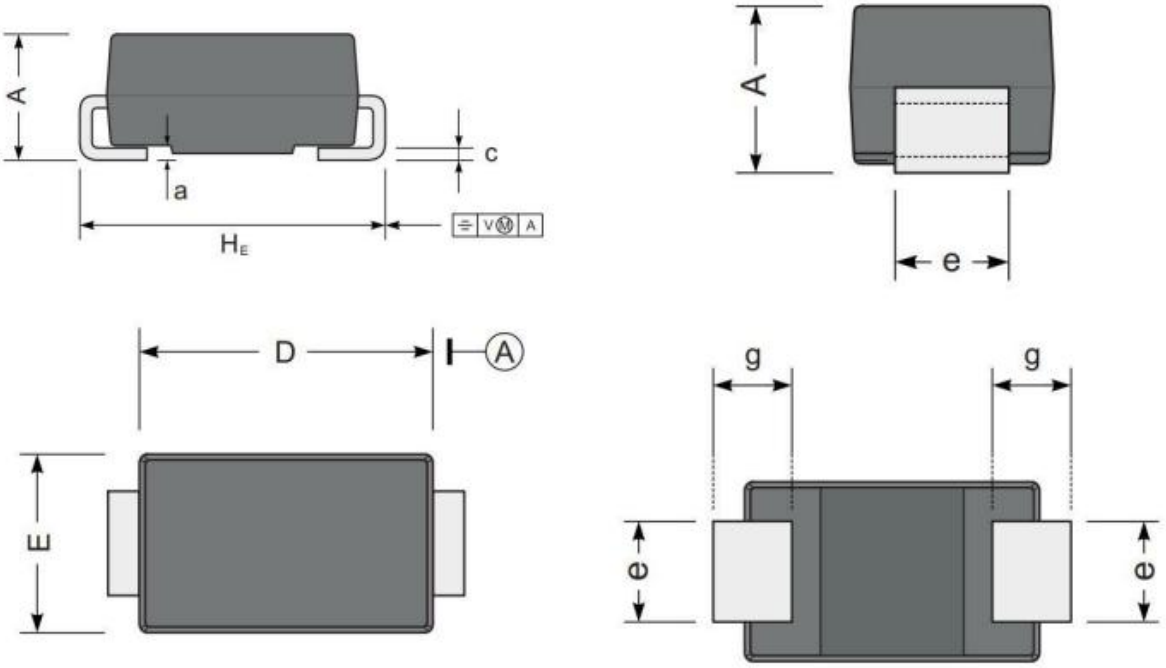


Fig 4. Typical Reverse Characteristics

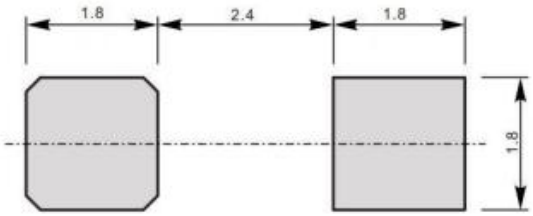


PACKAGE INFORMATION

Dimension in SMA Package (Unit: mm)



RECOMMENDED SOLDERING FOOTPRINT



Unit：mm

Symbol	Min	Max
A	1.90	2.20
D	4.00	4.50
E	2.30	2.70
H_E	4.70	5.20
c	0.15	0.31
e	1.30	1.60
g	0.90	1.50
a	0.30	

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