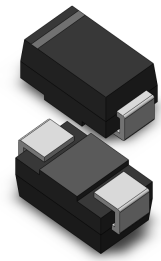
BYG23M

FAST SILICON MESA SMD RECTIFIER DIODE



VOLTAGE RANGE: 1000V
CURRENT: 1.5 A

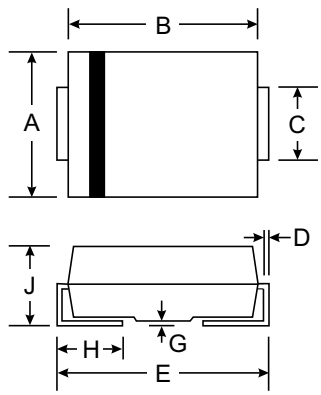
Features

- Glass passivated junction
- Low reverse current
- High reverse voltage
- Fast reverse recovery time
- 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.)

RoHS COMPLIANT



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°C unless otherwise specified

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage= Repetitive peak reverse voltage			V_R= V_{RRM}	1000	V
Peak forward surge current	t_p=10ms, half sinewave		I_{FSM}	30	A
Average forward current	T_{amb} = 65˚C		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		E_R	20	mJ

Maximum Thermal ResistancejT = 25C

Parameter	Test Conditions	Symbol	Value	Unit
Junction case		R_{thJC}	25	K/W
Junction ambient	mounted on epoxy–glass hard tissue, 17mm^2 35µm Cu	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_2O_3), 50mm^2 35µm Cu	R_{thJA}	100	K/W

Electrical Characteristics jT = 25C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=1.0A		V_F			1.7	V
	I_F=1.0A, T_J = 150˚C		V_F			1.35	V
Reverse current	V_R=V_{RRM}		I_R			5	µA
	V_R=V_{RRM}, T_j=125˚C		I_R			50	µA
Breakdown voltage	I_R = 100 µA		$V_{(BR)R}$	1000			V
Reverse recovery time	I_F=0.5A, I_R=1A, i_R=0.25A		t_{rr}			75	ns

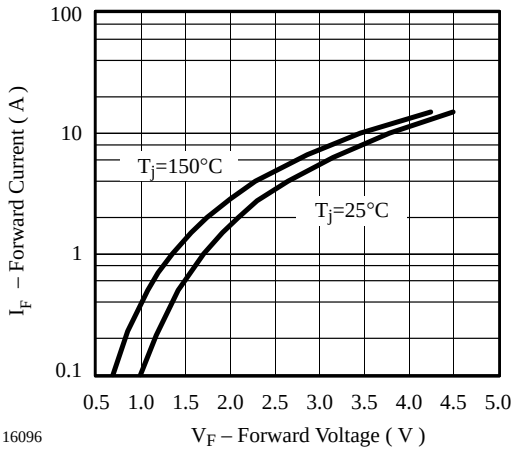


Figure 1. Max. Forward Current vs. Forward Voltage

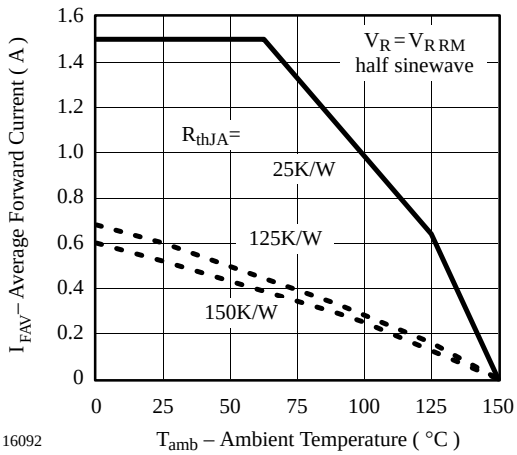


Figure 2. Max. Average Forward Current vs. Ambient Temperature

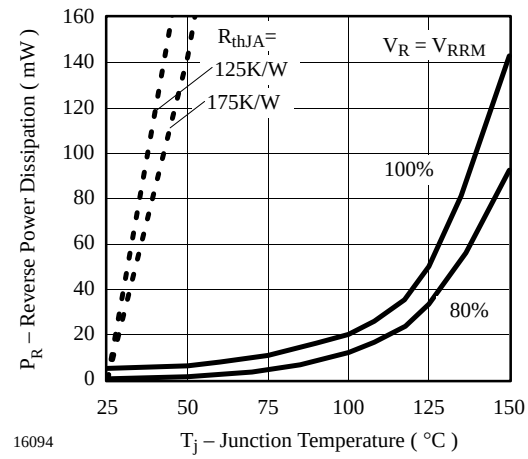


Figure 3. Max. Reverse Power Dissipation vs. Junction Temperature

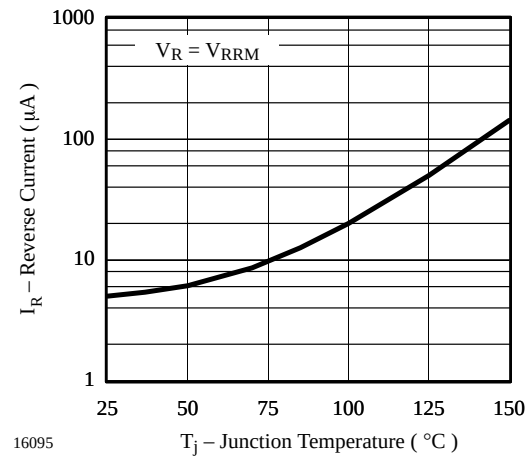


Figure 4. Max. Reverse Current vs. Junction Temperature

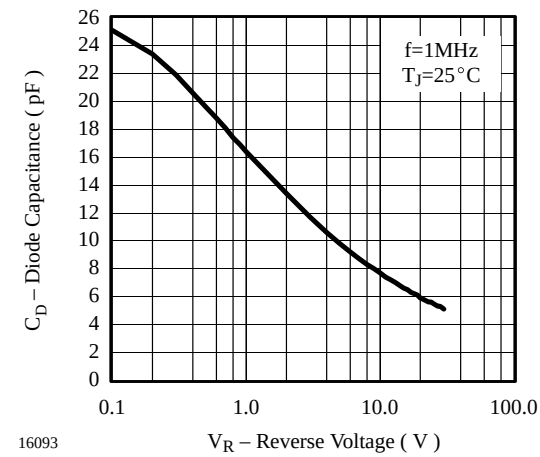


Figure 5. Typ. Diode Capacitance vs. Reverse Voltage