

**DESCRIPTION**

The MBR0520HF is available in SOD-123FL package.

FEATURE

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, freewheeling, and polarity protection applications

MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz

PIN DESCRIPTION

SOD-123FL

**ORDERING INFORMATION**

Package Type	Part Number
SOD-123FL	MBR0520HF
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN#	DESCRIPTION
1	CATHODE
2	ANODE



ABSOLUTE MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

V _{RRM} , Maximum Repetitive Peak Reverse Voltage	20V
V _{RMS} , Maximum RMS voltage	14V
V _{DC} , Maximum DC blocking voltage	20V
I _{F(AV)} , Maximum Average Forward Rectified Current	1A
I _{FSM} , Peak Forward Surge Current 8.3ms Single Half Sinewave Superimposed on Rated Load (JEDEC Method)	30A
R _{θJA} , Typical Thermal Resistance*	100°C/W
T _J , Operating Junction Temperature Range	-55°C ~ + 125°C
T _{STG} , Storage Temperature Range	-55°C ~ + 150°C

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.

* Measured at 1 MHz and applied reverse voltage of 4 V D.C

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

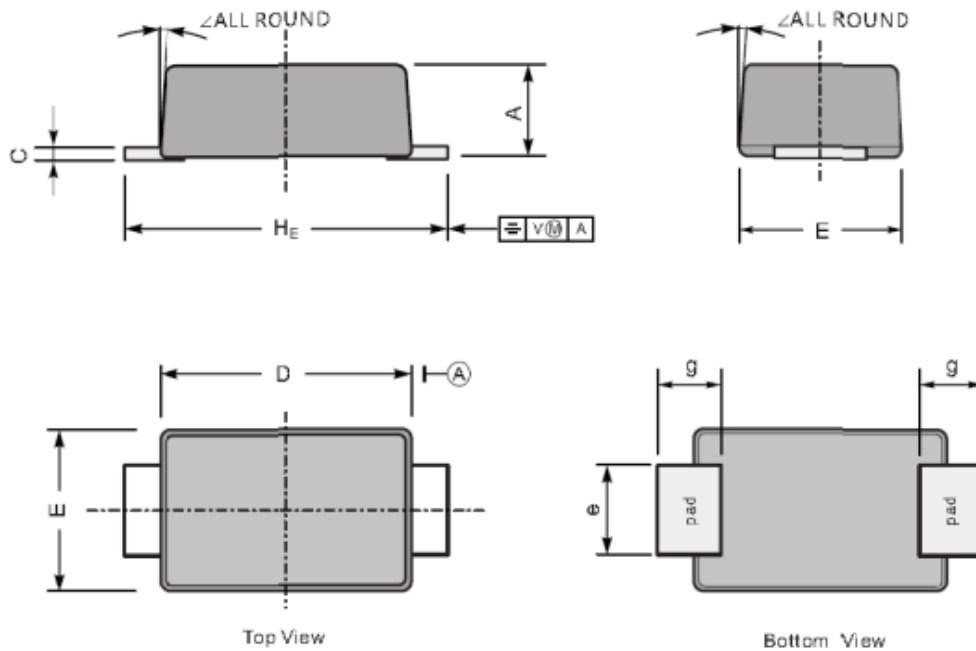
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _A = 25°C	-	0.30	-	mA
		T _A = 100°C	-	10	-	
Max Instantaneous Forward Voltage at 1 A	V _F	-	-	0.55	-	V
Typical Junction Capacitance*	C _J	-	-	110	-	pF

* P.C.B. mounted with 2 .0" X 2 .0" (5 X 5 cm) copper pad areas.

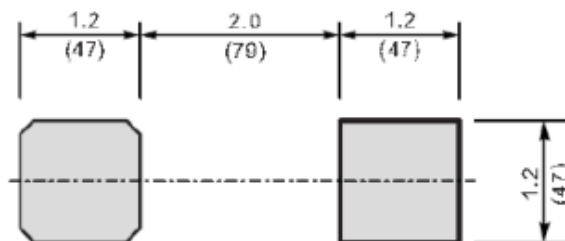


PACKAGE INFORMATION

Dimension in SOD-123FL Package



The recommended mounting pad size



Unit: $\frac{\text{mm}}{(\text{mil})}$

UNIT		A	C	D	E	e	g	H _E	∠
mm	Max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	Min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	Max	43	7.9	114	75	43	35	150	
	Min	35	4.7	102	67	31	28	138	



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