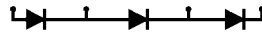
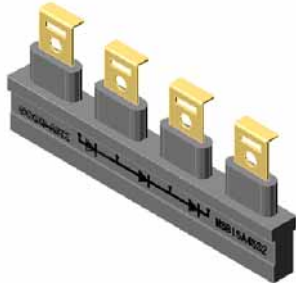


Bypass Diode Module for Solarcell (Schottky Barrier Diode Type)

Reverse Voltage 45V
Forward Current 15A



Outline Drawing

internal schematic diagram

Features

- Low thermal resistance
- Low forward voltage drop, low power loss
- Compact outline design
- Excellent anti-humidity
- High current capability
- High forward surge capability
- RoHS compliance

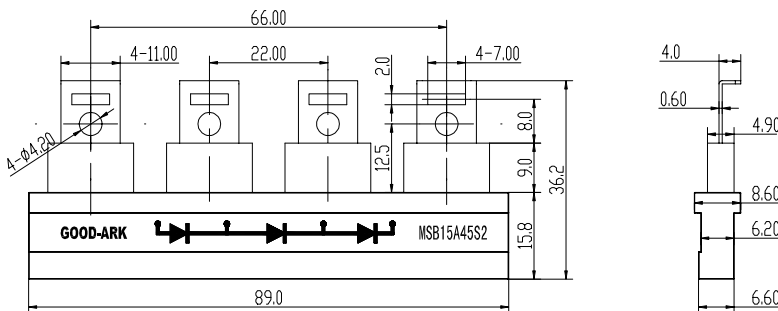
Mechanical Data

Case: plastic body

Terminals: Sn plated leads

Typical Applications

For use in solar cell junction box as bypass diodes for protection, using DC forward current without reverse bias.



Dimensions in millimeters

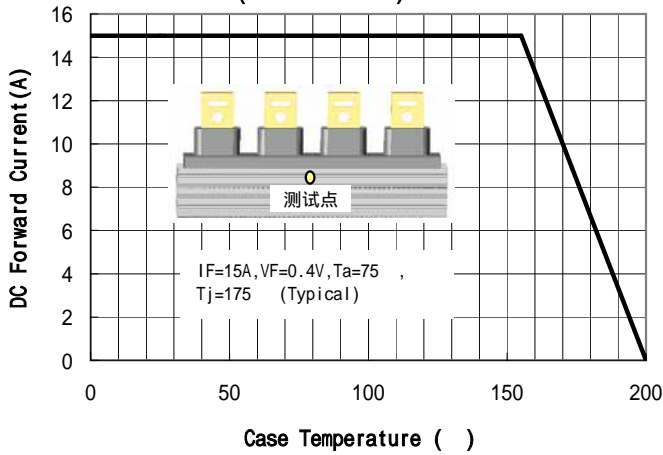
Maximum Ratings & Electrical Characteristics Ratings at 25 °C ambient temperature unless otherwise specified

Parameter	Symbol	MSB15A45S2L	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Working peak reverse voltage	V_{RWM}	45	V
DC output current ($T_c=155^\circ\text{C}$, with special heatsink)	I_F	15	A
Surge forward current 1cycle, 60HZ, peak value, non-repetitive	I_{FSM}	400	
Repetitive peak reverse current ($V_R=V_{RRM}$)	$I_{RRM} (Max)$	0.8	mA
Forward voltage drop $I_F=15A$, Inst measurement	$V_{FM} (Max)$	0.45	V
Typical thermal resistance (junction to case, with heatsink)	$R_{\theta jc}$	1.0	$^{\circ}\text{C}/\text{W}$
Operating junction temperature range ($V_R \leq 80\%V_{RRM}$)	T_J	- 55 to +125	
Junction temperature in DC forward current without reverse bias		200	
Storage temperature	T_{stg}	- 55 to +150	
Isolation voltage AC, 1minute	V_{ISO}	6000	V
Mass (typical value)		30	g

Ratings & Characteristics Curves

($T_a=25$ unless otherwise noted)

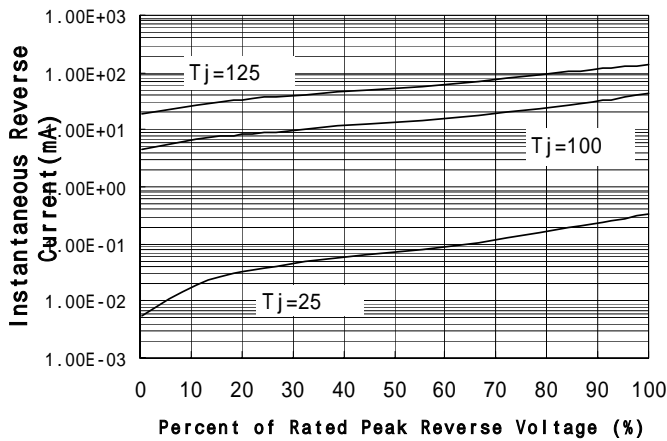
**Forward Current Derating
(with heatsink)**



Notes:

- Mounted on junction box
- Using DC forward current

Typical Reverse Characteristics



Typical Forward Characteristics

