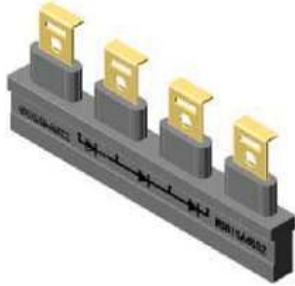


## Bypass Diode Module for Solarcell (Schottky Barrier Diode Type)

**Reverse Voltage 45V**  
**Forward Current 15A**



**Outline Drawing**



**internal schematic diagram**

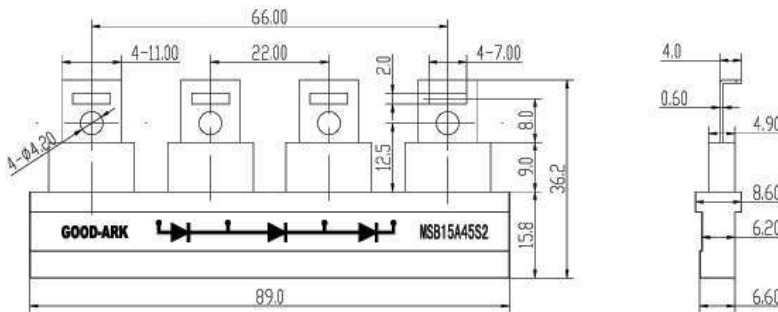
### Features

- 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



**Dimensions in millimeters**

### Typical Applications

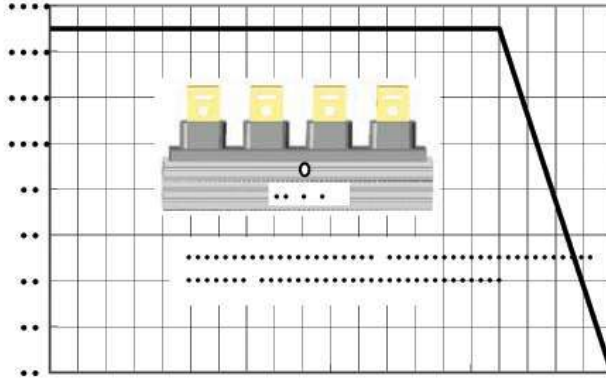
- For use in solar cell junction box as bypass diodes for protection, using DC forward current without reverse bias.

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

Parameter	Symbol	MSB15A45S	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	V
Working peak reverse voltage	$V_{RWM}$	45	V
DC output current ( $T_c=160^\circ\text{C}$ with special heatsink)	$I_F$	15	A
Surge forward current 1 cycle, 60HZ, peak value, non-repetitive	$I_{FSM}$	500	
Repetitive peak reverse current ( $V_R=V_{RRM}$ )	$I_{RRM (Max)}$	0.25	mA
Forward voltage drop $I_F=15A$ , Inst measurement	$V_{FM (Max)}$	0.5	V
Typical thermal resistance (junction to case, with heatsink)	$R_{\theta jc}$	0.8	$^\circ\text{C}/\text{W}$
Operating junction temperature range ( $V_R=80\%V_{RRM}$ )	$T_J$	• 55 to +150	• •
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

( $T_a=25^\circ\text{C}$  unless otherwise noted)



**Notes:**

- Mounted on junction box
- Using DC forward current

