

# MMB J-BOX ACTIV BYPASS DIODE



## Cool bypass switch

MMB J-Box with cool bypass switch is the significant evolution with respect to the traditional standard diode. The new generation of active or “smart” diodes is needed to enable further efficiency increases in photovoltaic modules. A smart bypass diode offers a drop-in replacement for surface-mounted Schottky diodes with one order of magnitude improved power.

### Features:

- Drastically reduce the power dissipation in bypass mode
- Allows the device to work at very high temperature avoiding thermal runaway phenomenon
- Maximize the power transfer from harvesting source to the inverter
- Reduce the maintenance costs and shutdown due to a device failure
- Ultra low reverse leakage current
- Strong ESD robustness

### Benefits for investor:

- Increase return on investment
- Prolongs the lifetime of the device
- Reduce the maintenance costs

### Electrical ratings :

PARAMETER	VALUE
Maximum reverse recovery mode	60 V
Maximum forward current	16 A
Forward voltage drop	VF = 120 mV @ IF = 10 A, TAMB =125 °C
Reverse leakage current	IR = 100 µA @ VR = 60 V, TAMB =125 °C
Temperature range – for active diode	-40 °C to 130 °C
Surge test level (IEC61000-4-5)	2 kV
ESD HBM level (JESD22-A114)	8 kV
JBOX ENCLOSURE	TYCO 2176829-1