Micro Commercial Components

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Complete Discrete Semiconductor Solutions

Automotive Schottky Barrier Rectifiers

MCC's automotive Schottky barrier rectifiers are ideal for low-power, high-efficiency applications

MCC extends their SMD automotive portfolio for high-power, small area, and high surge forward current requirements with the MBR Schottky barrier rectifiers. These rectifiers are available in a TO-277 package, allowing current capacities up to 15 A, blocking voltages from 45 V to 200 V, and small reverse currents of 10 µA at 25°C.

Key Features:

- AEC-Q101 qualified
- High surge forward current capability
- Low power loss, high efficiency
- Halogen-free and green device
- High voltage (200 V) and current capabilities (up to 15 A)
- Low reverse current

Applications:

- Low-power, high-efficiency applications
- Reverse battery protection
- DC/DC blocking/conducting element on SMPS
- Freewheeling applications
- OR-ing bus voltages

Advantages:

- Small VF (Forward Voltage)
- Very Fast Reverse Recovery
- Low capacitance of the junction

TO-277

Design Considerations:

- Reverse leakage current should be taken into consideration at higher temperatures
- For higher voltages, Fast Recovery Diodes are more efficient.
- VF decreases with increased temperature

Part Number	AECQ101	PPAP	Function	Package	Forward Current IF (A)	Reverse Current VRWM (V)	Forward Voltage VF (V)	Reverse Leakage Current IR (µA)
MBR15U45HE3	Yes	Yes	Single	TO-277	15	45	0.54	100
MBR5U60SHE3	Yes	Yes	Single	TO-277	5	60	0.65	100
MBR15U60HE3	Yes	Yes	Single	TO-277	15	60	0.68	100
MBR5U100HHE3	Yes	Yes	Single	TO-277	5	100	0.8	10
MBR10U100HHE3	Yes	Yes	Single	TO-277	10	100	0.85	10
MBR10U200HE3	Yes	Yes	Single	TO-277	10	200	0.85	100

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