



## Product Overview

### MBRM120E: Schottky Power Rectifier, Surface Mount, 1.0 A, 20 V

For complete documentation, see the data sheet

#### Product Description

The Schottky Powermite employs the Schottky Barrier principle with a barrier metal and epitaxial construction that produces optimal forward voltage drop-reverse current tradeoff. The advanced packaging techniques provide for a highly efficient micro miniature, space saving surface mount Rectifier. With its unique heatsink design, the Powermite has the same thermal performance as the SMA while being 50% smaller in footprint area, and delivering one of the lowest height profiles, < 1.1 mm in the industry. Because of its small size, it is ideal for use in portable and battery powered products such as cellular and cordless phones, chargers, notebook computers, printers, PDAs and PCMCIA cards. Typical applications are ac/dc and dc-dc converters, reverse battery protection, and "Oring" of multiple supply voltages and any other application where performance and size are critical.

#### Features

- Low Profile - Maximum Height of 1.1 mm
- Small Footprint - Footprint Area of 8.45 mm<sup>2</sup>
- Low  $V_F$  Provides Higher Efficiency and Extends Battery Life
- Supplied in 12 mm Tape and Reel
- Low Thermal Resistance with Direct Thermal Path of Die on Exposed Cathode Heat Sink

#### Mechanical Characteristics:

- Powermite is JEDEC Registered as DO-216AA
- Case: Molded Epoxy
- Epoxy Meets UL94V-0 at 1/8"
- Weight: 62 mg (approximately)
- Device Marking: BCV

#### Part Electrical Specifications

Product	Compliance	Status	Configuration	$V_{RRM}$ Min (V)	$V_F$ Max (V)	$I_{RM}$ Max (A)	$I_{O(rec)}$ Max (A)	$I_{FSM}$ Max (A)	$t_r$ Max (ns)	$C_j$ Max (pF)	Package Type
MBRM120ET1G	AEC Qualified Pb-free Halide free	Active	Single	20	0.53	10	1	50			POWERM ITE-2
MBRM120ET3G	AEC Qualified Pb-free Halide free	Active	Single	20	0.53	10	1	50			POWERM ITE-2
NRVBM120ET1G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	20	0.53	10	1	50			POWERM ITE-2
NRVBM120ET3G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Single	20	0.53	10	1	50			POWERM ITE-2

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com)

Created on: 7/11/2015