



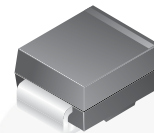
February 2015

# MBRS140

## Schottky Rectifier

### Features

- Compact Surface Mount with J-bend Leads (SMB)
- 1.5 W Power Dissipation Package
- 1.0 A, Forward Voltage less than 600 mV



**SMB (DO-214AA)**  
Color Band Denote Cathode

### Ordering Information

Part Number	Top Mark	Package	Packing Method
MBRS140	B140	DO-214AA (SMB)	Tape and Reel

### Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Value	Unit
$V_{RRM}$	Maximum Repetitive Reverse Voltage	40	V
$I_{F(AV)}$	Average Rectified Forward Current at $T_L = 120^\circ\text{C}$	1.0	A
$I_{FSM}$	Non-Repetitive Peak Forward Surge Current (8.3 ms, Single Half-Sine-Wave)	40	A
$T_{STG}$	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-65 to +125	$^\circ\text{C}$

### Thermal Characteristics

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Value	Unit
$R_{\theta JL}$	Thermal Resistance, Junction-to-Lead	12	$^\circ\text{C/W}$

### Electrical Characteristics

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Conditions	Min.	Max.	Unit
$V_F$	Forward Voltage	$I_F = 1.0\text{ A}$		600	mV
$I_R$	Reverse Current	$V_R = 40\text{ V}$		1.0	mA
		$V_R = 40\text{ V}, T_A = 100^\circ\text{C}$		10	

### Typical Performance Characteristics

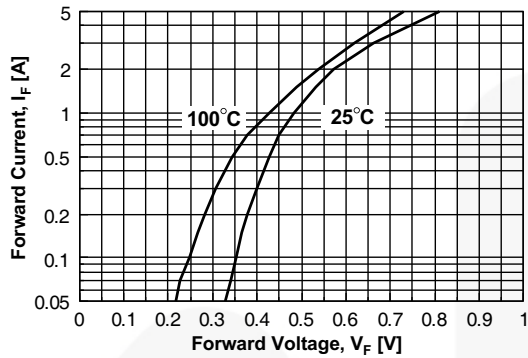


Figure 1. Forward Voltage Characteristics

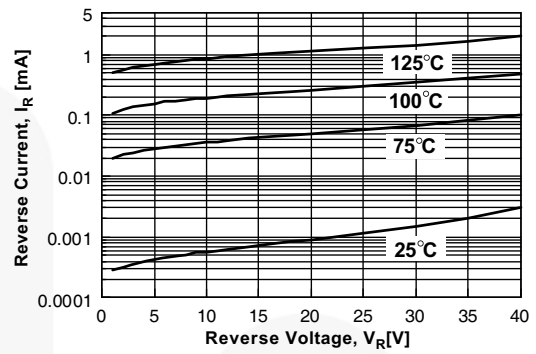


Figure 2. Reverse Current vs. Reverse Voltage

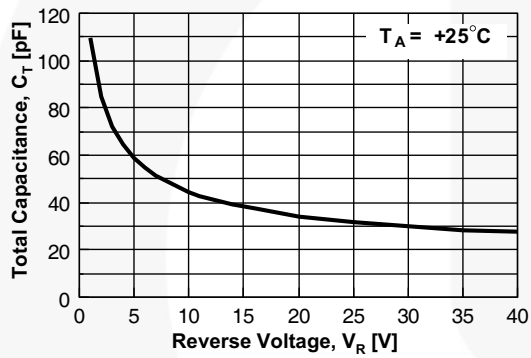
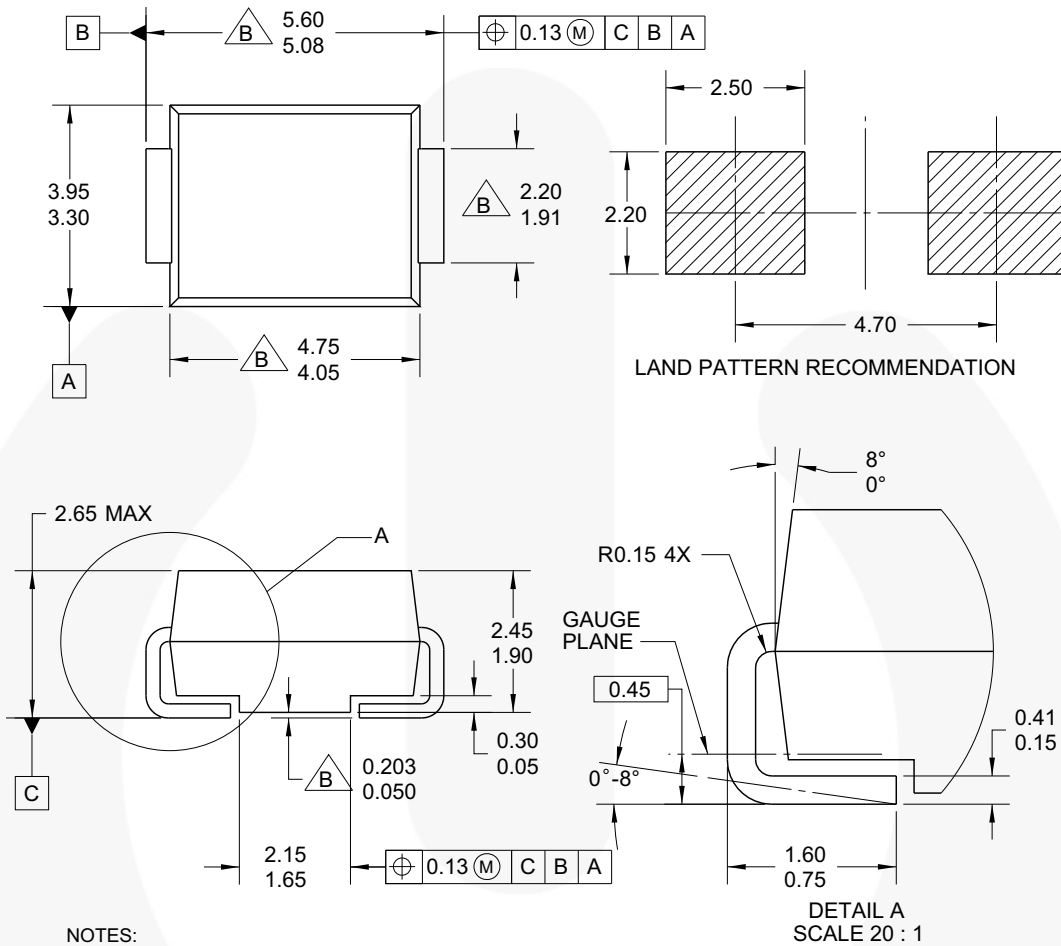


Figure 3. Total Capacitance

Physical Dimension



NOTES:






- A. EXCEPT WHERE NOTED CONFORMS TO JEDEC DO214 VARIATION AA.
- B. DOES NOT COMPLY JEDEC STD. VALUE.
- C. ALL DIMENSIONS ARE IN MILLIMETERS.
- D. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
- E. DIMENSION AND TOLERANCE AS PER ASME Y14.5-1994.
- F. LAND PATTERN STD. DIOM5336X240M.
- G. DRAWING FILE NAME: DO214AAREV1

Figure 4. 2-LEAD, SMB, JEDEC DO-214, VARIATION AA



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