

MBRS130L

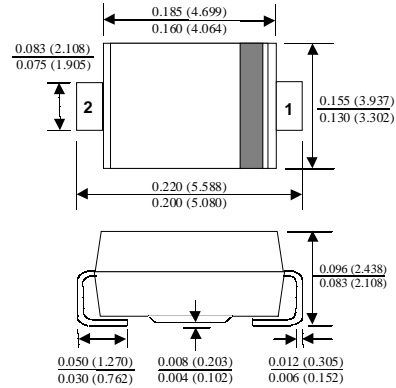
Features

- Compact surface mount package with J-bend leads.
- 1.5 Watt Power Dissipation package.
- 1.0 Ampere, forward voltage less than 395 mv.



SMB/DO-214AA

COLOR BAND DENOTES CATHODE
TOP MARK: 1BL3



Ordering

- 13 inch reel (330 mm); 12 mm Tape;
3,000 units per reel.

1.0 Ampere Schottky Power Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units	
I_O	Average Rectified Current	@ $T_A = 120^\circ\text{C}$	1.0	A
		@ $T_A = 110^\circ\text{C}$	2.0	A
V_{RRM}	Repetitive Peak Reverse Voltage	30	V	
$I_{f(\text{surge})}$	Non-Repetitive Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	40	A	
$R_{\theta JL}$	Thermal Resistance, Junction to Lead **	12	$^\circ\text{C}/\text{W}$	
T_{stg}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$	
T_J	Operating Junction Temperature	-65 to +125	$^\circ\text{C}$	

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

** Device mounted on FR-4 PCB 0.013 mm.

Electrical Characteristics*

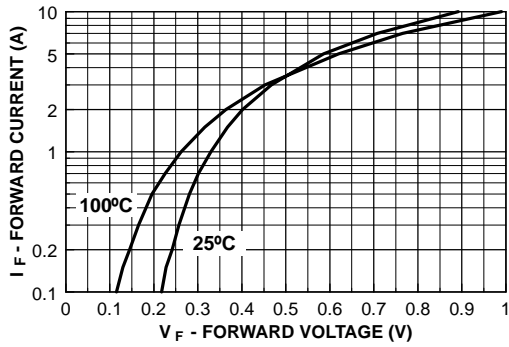
$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
I_R	Reverse Leakage Current	$V_R = 30\text{ V}, T_A = 25^\circ\text{C}$		1.0	mA
		$V_R = 30\text{ V}, T_A = 100^\circ\text{C}$		10	mA
V_F	Forward Voltage	$I_F = 1.0\text{ A}, T_A = 25^\circ\text{C}$		395	mV
		$I_F = 2.0\text{ A}, T_A = 25^\circ\text{C}$		445	mV

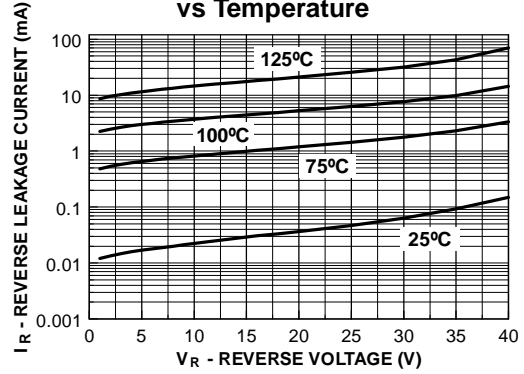
* Pulse Test: Pulse Width $\leq 300\ \mu\text{s}$, Duty Cycle $\leq 2.0\%$

Typical Characteristics

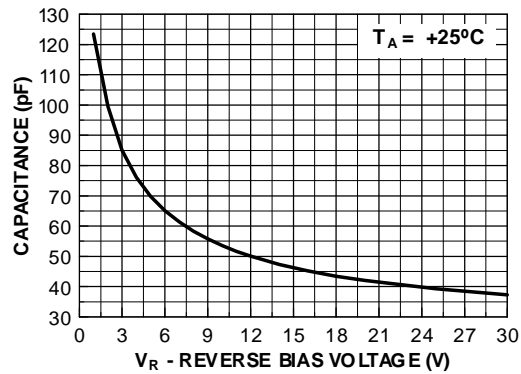
Forward Voltage vs Temperature



Reverse Leakage Current vs Temperature



Capacitance vs. Reverse Bias Voltage



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