

Advance Information

SWITCHMODE™ Power Rectifier

... employing the Schottky Barrier principle in a large metal-to-silicon power diode. State-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for use in low voltage, high frequency switching power supplies, low voltage converters, OR'ing diodes, and polarity protection devices.

- Very Low Forward Voltage (0.28 V Maximum @ 19 Amps, 70°C)
- Guardring for Stress Protection
- Highly Stable Oxide Passivated Junction (100°C Operating Junction Temperature)
- Epoxy Meets UL94, VO at 1/8"

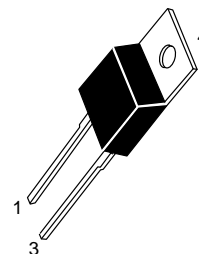
Mechanical Characteristics

- Case: Epoxy, Molded
- Weight: 1.9 grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds
- Shipped 50 Units Per Plastic Tube
- Marking: B2515L



MBR2515L

**SCHOTTKY BARRIER
RECTIFIER
25 AMPERES
15 VOLTS**



**CASE 221B-03, STYLE 1
(TO-220AC)**

MAXIMUM RATINGS (Per Leg)

Rating	Symbol	Max	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	15	Volts
Average Rectified Forward Current (Rated V_R) $T_C = 90^\circ\text{C}$	$I_F(AV)$	25	Amps
Peak Repetitive Forward Current, Per Leg (Rated V_R , Square Wave, 20 kHz) $T_C = 90^\circ\text{C}$	I_{FRM}	30	Amps
Non Repetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	I_{FSM}	150	Amps
Peak Repetitive Reverse Surge Current (2.0 μs , 1.0 kHz)	I_{RRM}	1.0	Amps
Operating Junction Temperature	T_J	-65 to +100	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 to +125	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Thermal Resistance — Junction to Case	$R_{\theta JC}$	2.0	$^\circ\text{C/W}$
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ELECTRICAL CHARACTERISTICS

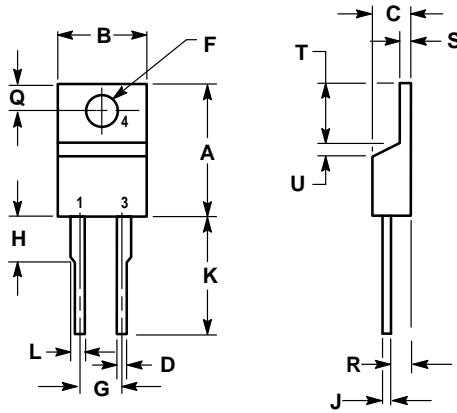
Maximum Instantaneous Forward Voltage (1) ($I_F = 25$ Amps, $T_J = 25^\circ\text{C}$) ($I_F = 25$ Amps, $T_J = 70^\circ\text{C}$) ($I_F = 19$ Amps, $T_J = 70^\circ\text{C}$)	V_F	0.45 0.42 0.28	Volts
Maximum Instantaneous Reverse Current (1) (Rated DC Voltage, $T_J = 25^\circ\text{C}$) (Rated DC Voltage, $T_J = 70^\circ\text{C}$)	I_R	15 200	mA

(1) Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$.

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This document contains information on a new product. Specifications and information herein are subject to change without notice.

PACKAGE DIMENSIONS




- NOTES:
 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.595	0.620	15.11	15.75
B	0.380	0.405	9.65	10.29
C	0.160	0.190	4.06	4.82
D	0.025	0.035	0.64	0.89
F	0.142	0.147	3.61	3.73
G	0.190	0.210	4.83	5.33
H	0.110	0.130	2.79	3.30
J	0.018	0.025	0.46	0.64
K	0.500	0.562	12.70	14.27
L	0.045	0.060	1.14	1.52
Q	0.100	0.120	2.54	3.04
R	0.080	0.110	2.04	2.79
S	0.045	0.055	1.14	1.39
T	0.235	0.255	5.97	6.48
U	0.000	0.050	0.000	1.27

- STYLE 1:
 PIN 1. CATHODE
 2. N/A
 3. ANODE
 4. CATHODE

CASE 221B-03
 (TO-220AC)
 ISSUE B

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