MBR2515L

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

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	15	V
Average Rectified Forward Current (Rated V_R, T_C = 90°C)	$I_{F(AV)}$	25	A
Peak Repetitive Forward Current, per Leg (Rated V_R, Square Wave, 20 kHz, T_C = 90°C)	I_{FRM}	30	A
Non–Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	150	A
Peak Repetitive Reverse Surge Current (2.0 μs, 1.0 kHz)	I_{RRM}	1.0	A
Storage Temperature Range	T_{stg}	–65 to +125	°C
Operating Junction Temperature	T_J	–65 to +100	°C

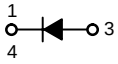
THERMAL CHARACTERISTICS

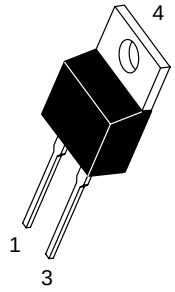
Thermal Resistance — Junction to Case	$R_{\theta JC}$	2.0	°C/W

ON Semiconductor™

http://onsemi.com

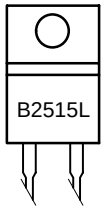
SCHOTTKY BARRIER RECTIFIER 25 AMPERES 15 VOLTS





TO–220AC
CASE 221B
STYLE 1

MARKING DIAGRAM



B2515L = Device Code

ORDERING INFORMATION

Device	Package	Shipping
MBR2515L	TO–220	50 Units/Rail

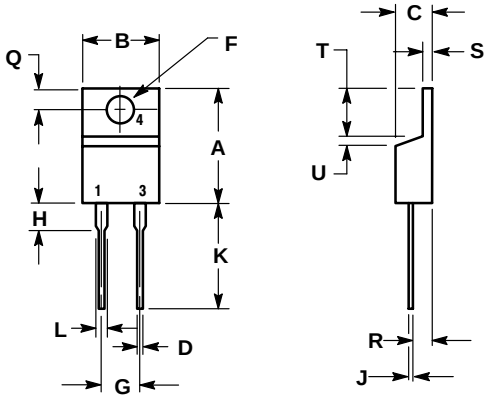
ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Maximum Instantaneous Forward Voltage (Note 1) (i_F = 25 Amps, T_J = 25°C) (i_F = 25 Amps, T_J = 70°C) (i_F = 19 Amps, T_J = 70°C)	v_F	 0.45 0.42 0.38	Volts
Maximum Instantaneous Reverse Current (Note 1) (Rated DC Voltage, T_J = 25°C) (Rated DC Voltage, T_J = 70°C)	I_R	 15 200	mA

1. Pulse Test: Pulse Width = 300 μs, Duty Cycle ≤ 2.0%.

PACKAGE DIMENSIONS

TO–220
PLASTIC
CASE 221B–04
ISSUE D



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

	INCHES		MILLIMETERS	
DIM	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

SWITCHMODE is a trademark of Semiconductor Components Industries, LLC.

PUBLICATION ORDERING INFORMATION

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