# 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

# **MAXIMUM RATINGS (Per Leg)**

Rating	Symbol	Max	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	15	Volts
Average Rectified Forward Current (Rated $V_R$ ) T <sub>C</sub> = 90°C	IF(AV)	25	Amps
Peak Repetitive Forward Current, Per Leg (Rated $V_R$ , Square Wave, 20 kHz) T <sub>C</sub> = 90°C	IFRM	30	Amps
Non Repetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	IFSM	150	Amps
Peak Repetitive Reverse Surge Current (2.0 µs, 1.0 kHz)	IRRM	1.0	Amps
Operating Junction Temperature	Тj	-65 to +100	°C
Storage Temperature	T <sub>stg</sub>	-65 to +125	°C

Thermal Resistance — Junction to Case

### ELECTRICAL CHARACTERISTICS

	VF	0.45 0.42 0.28	Volts
Maximum Instantaneous Reverse Current (1) (Rated DC Voltage, $T_J = 25^{\circ}C$ ) (Rated DC Voltage, $T_J = 70^{\circ}C$ )	IR	15 200	mA

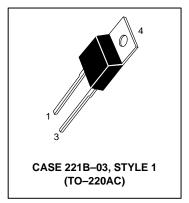
(1) Pulse Test: Pulse Width = 300  $\mu$ s, Duty Cycle  $\leq$  2.0%.

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



SCHOTTKY BARRIER RECTIFIER 25 AMPERES 15 VOLTS



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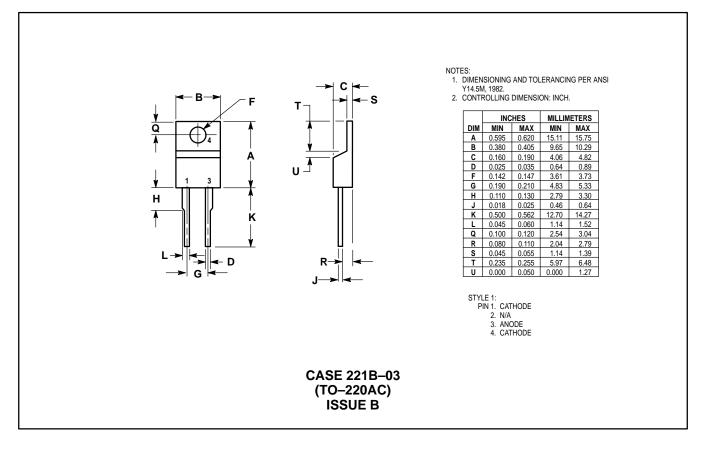
R<sub>0</sub>JC



2.0

°C/W

## PACKAGE DIMENSIONS



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#### How to reach us:

USA/EUROPE/Locations Not Listed: Motorola Literature Distribution; P.O. Box 5405, Denver, Colorado 80217. 303–675–2140 or 1–800–441–2447

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JAPAN: Nippon Motorola Ltd.; Tatsumi–SPD–JLDC, 6F Seibu–Butsuryu–Center, 3–14–2 Tatsumi Koto–Ku, Tokyo 135, Japan. 81–3–3521–8315

Mfax™: RMFAX0@email.sps.mot.com – TOUCHTONE 602–244–6609 INTERNET: http://Design\_NET.com

ASIA/PACIFIC: Motorola Semiconductors H.K. Ltd.; 8B Tai Ping Industrial Park, 51 Ting Kok Road, Tai Po, N.T., Hong Kong. 852–26629298



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