

Schottky Barrier Rectifier

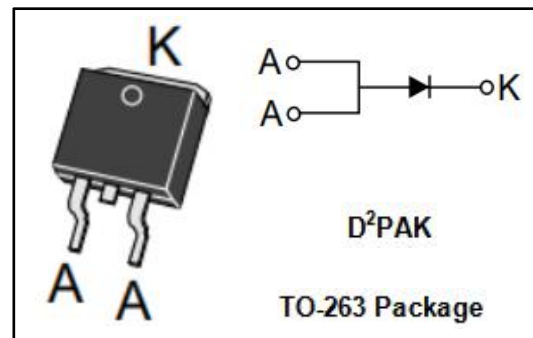
MBRB40250TG

FEATURES

- Guard -Ring for Stress Protection
- Low Forward Voltage
- High Operating Junction Temperature
- Low Power Loss/High Efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

MECHANICAL CHARACTERISTICS

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds



ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

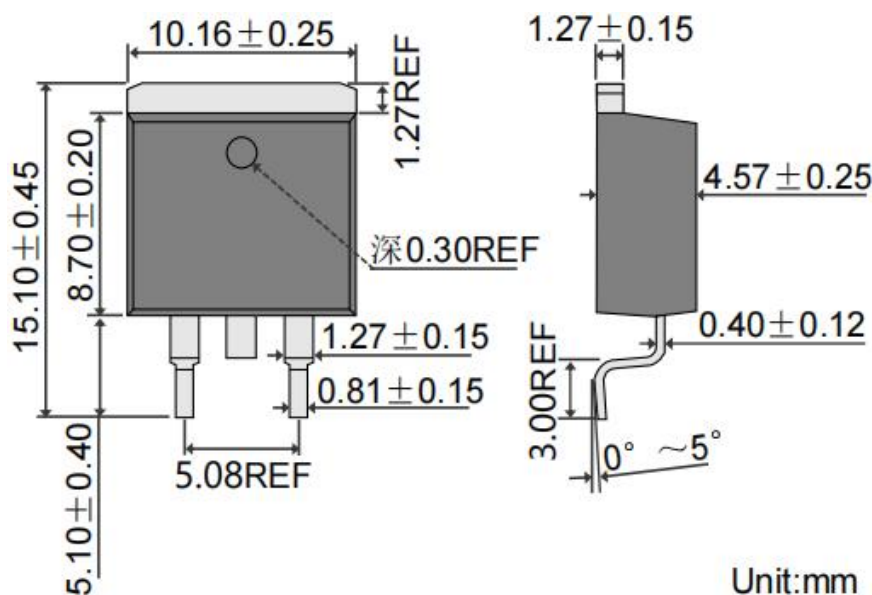
SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	250	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R) T _C = 105°C	40	A
I _{FRM}	Peak Repetitive Forward Current (Rated V _R , Square Wave, 20kHz) T _C = 105°C	80	A
I _{FSM}	Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	150	A
T _J	Junction Temperature	-65~175	°C
T _{stg}	Storage Temperature Range	-65~175	°C
dv/dt	Voltage Rate of Change (Rated V _R)	10,000	V/μs

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	2.0	°C/W

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ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μs, Duty Cycle ≤ 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 20A ; T_C = 25^\circ C$ $I_F = 20A ; T_C = 125^\circ C$	0.89 0.78	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C = 25^\circ C$ Rated DC Voltage, $T_C = 125^\circ C$	0.25 30	mA


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