

Schottky Barrier Rectifier

MBR20300CT

FEATURES

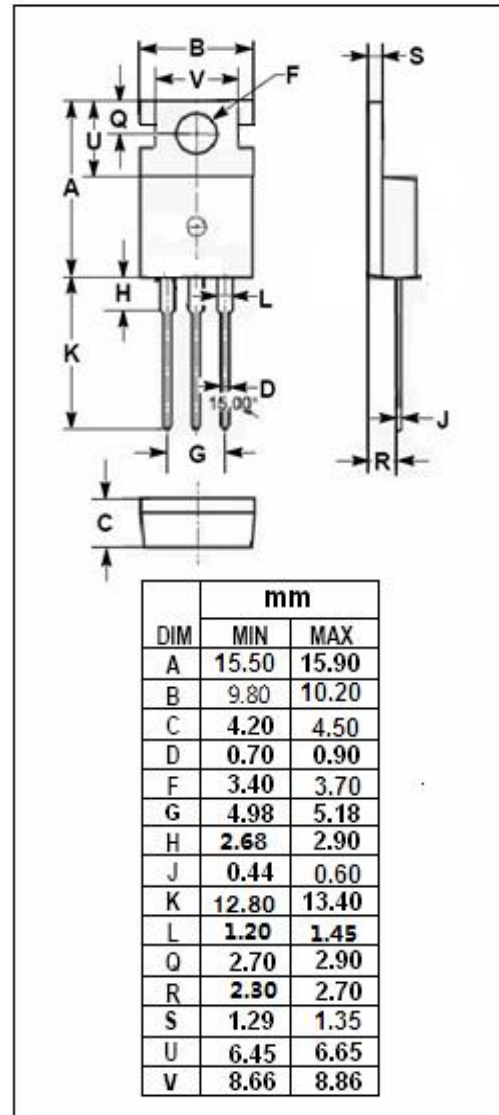
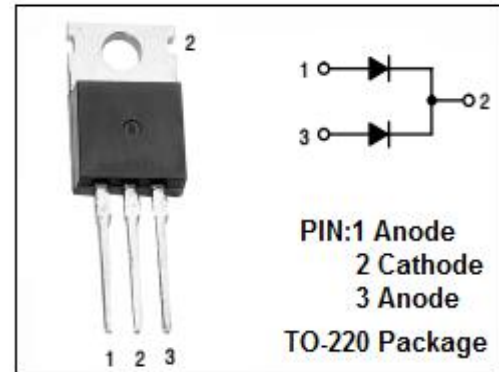
- Metal silicon junction, majority carrier conduction
- Low leakage current, low power loss, high efficiency
- Dual rectifier construction, positive center tap
- Guardring for overvoltage protection
- High surge current capability
- Low stored charge majority carrier conduction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RMS} V _R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	300	V
I _{F(AV)}	Average Rectified Forward Current @T _c =120°C	20	A
I _{FSM}	Nonrepetitive Peak Surge Current (60Hz half-sine wave ,1 cycle)	200	A
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.0	°C/W

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 10A$	0.89	V
I_R	Maximum Instantaneous Reverse Current	$V_R = \text{rated } V_{RRM}; T_C = 25^\circ C$ $V_R = \text{rated } V_{RRM}; T_C = 125^\circ C$	0.1 5	mA

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