

Schottky Barrier Rectifier

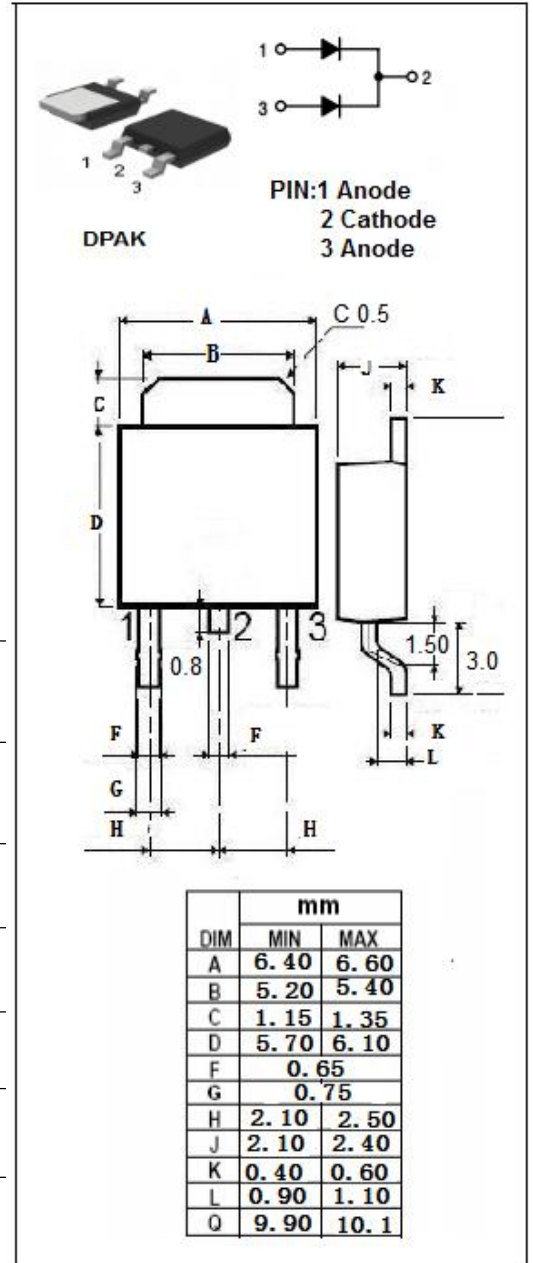
MBR2045CS

FEATURES

- Guard -Ring for Stress Protection
- Low Forward Voltage
- High Operating Junction Temperature
- Guaranteed Reverse Avalanche
- Pb-Free Packages are Available
- 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 _R RM V _R WM V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	45	V
I _F (AV)	Average Rectified Forward Current (Rated V _R) T _C = 135°C	20	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
I _{RRM}	Peak Repetitive Reverse Surge Current (20 μ s, 1.0kHz)	1.0	A
T _J	Junction Temperature	-65~175	°C
T _{stg}	Storage Temperature Range	-65~175	°C

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.0	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300us, Duty Cycle \leq 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F= 10A ; T_C= 125^{\circ}C$ $I_F= 20A ; T_C= 25^{\circ}C$ $I_F= 20A ; T_C= 125^{\circ}C$	0.57 0.84 0.72	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C= 25^{\circ}C$ Rated DC Voltage, $T_C= 125^{\circ}C$	0.1 5.0	mA

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