

# Schottky Barrier Rectifier

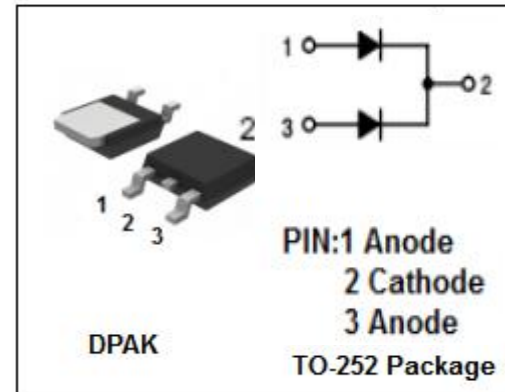
# MBRD2040CT

## FEATURES

- With TO-252(DPAK) packaging
- Low power loss
- High frequency operation
- High surge capacity
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

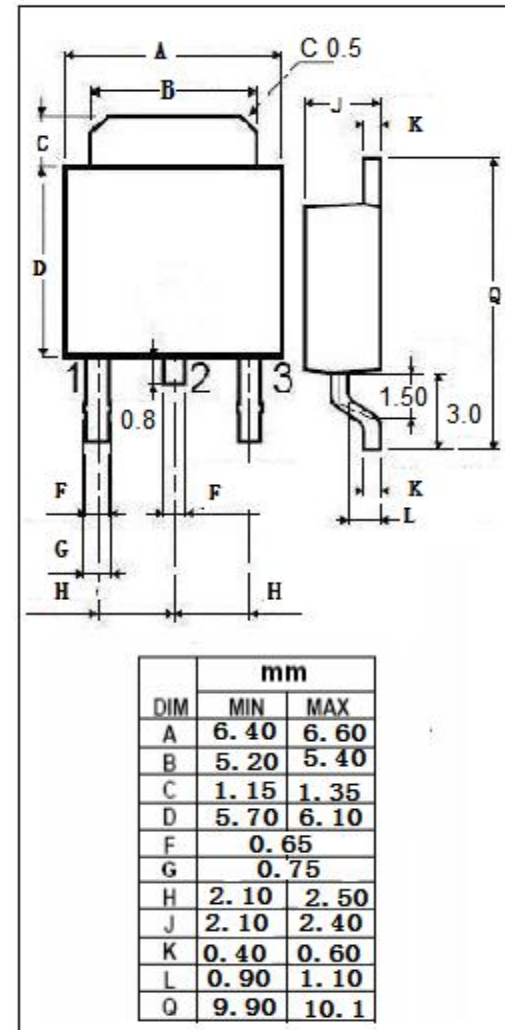
## APPLICATIONS

- Switching power supply
- High frequency inverters
- Freewheeling diodes
- Reverse battery protection
- Polarity protection applications



## ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RMS</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	40	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	20	A
I <sub>F(RMS)</sub>	Forward rms current	40	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current (10ms single half sine-wave superimposed on rated load conditions,60Hz)	120	A
T <sub>J</sub>	Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



**Schottky Barrier Rectifier**
**MBRD2040CT**
**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-a</sub>	Typical Thermal Resistance	45	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	I <sub>F</sub> = 10A ; T <sub>C</sub> = 25°C	0.60	V
I <sub>R</sub>	Maximum Instantaneous Reverse Current	V <sub>R</sub> = rated V <sub>RRM</sub> ; T <sub>C</sub> = 25°C	0.1	mA
		V <sub>R</sub> = rated V <sub>RRM</sub> ; T <sub>C</sub> = 125°C	20	

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