

MBR0560 Preliminary DIODE

# 0.5 AMP SCHOTTKY RECTIFIER

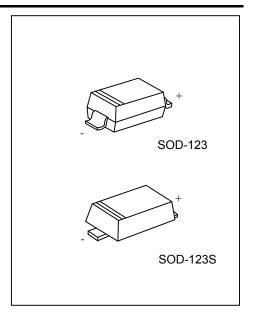
#### **■** DESCRIPTION

The UTC **MBR0560** is a Schottky Rectifier with high current capacity, ultra low thermal resistance and low forward voltage.

The UTC **MBR0560** is suitable for surface mount applications.

#### **■ FEATURES**

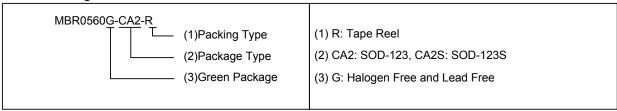
- \* Ultra Low Thermal Resistance
- \* High Current Capability
- \* Low Forward Voltage



#### **■** ORDERING INFORMATION

Ordering Number	Package	Pin Assignment		Dooking	
		1	2	Packing	
MBR0560G-CA2-R	SOD-123	K	Α	Tape Reel	
MBR0560G-CA2S-R	SOD-123S	K	Α	Tape Reel	

Note: Pin Assignment: A: Anode K: Cathode



### **■** MARKING



<u>www.unisonic.com.tw</u> 1 of 3

## ■ ABSOLUTE MAXIMUM RATINGS (T<sub>J</sub>=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	60	V
Working Peak Reverse Voltage	$V_{RWM}$	60	V
Maximum DC Blocking Voltage	$V_R$	60	V
Average Rectified Output Current T <sub>C</sub> =125°C	Io	0.5	Α
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	5.5	А
Operating Temperature	T <sub>OPR</sub>	-55 ~ +150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ <b>+</b> 150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

## **■ THERMAL CHARACTERISTICS (PER LEG)**

PARAMETER		SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	SOT-123	0	20	°C/W
	SOT-123S	θ <sub>JL</sub>	30 (Note)	°C/W

Note: FR-4 PCB, 2 oz Copper. Minimum recommended pad layout.

## ■ **ELECTRICAL CHARACTERISTICS (PER LEG)** (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	I <sub>R</sub> =0.50mA	60			V
Forward Voltage Drop	$V_{FM}$	I <sub>F</sub> =0.5A, T <sub>C</sub> =25°C			0.7	V
Leakage Current	I <sub>RM</sub>	Rated DC Voltage, T <sub>C</sub> =25°C			200	μΑ
Junction Capacitance (Note 2)	CJ			30		pF

Notes: 1. Pulse Test: Pulse width ≤ 300µs, Duty cycle ≤ 2%.

<sup>2.</sup> Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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