



## Schottky Diodes

### Features

- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

**Typical A : Terminals** leads, solderable per J-STD-002 and JESD22-B102

**Polarity:** As marked

### Maximum Ratings (T<sub>a</sub>=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR4045CT
Device marking code			MBR4045CT
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	45
Average Rectified Output Current @60Hz sine wave, R-load, T <sub>c</sub> =126	I <sub>o</sub>	A	40
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T <sub>a</sub> =25	I <sub>FSM</sub>	A	300
Current Squared Time @1ms t 8.3ms T <sub>j</sub> =25	I <sup>2</sup> t	A <sup>2</sup> s	373
Storage Temperature	T <sub>stg</sub>		-55 ~ +150
Junction Temperature	T <sub>j</sub>		-55 ~ +150

### Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V <sub>FM</sub> T <sub>j</sub> =125	V	L - a - d - z - a - V - I - F	-	0.52	-
DC reverse current at rated DC blocking voltage per diode	I <sub>RRM1</sub>	mA	V <sub>RM</sub> =V <sub>RRM</sub> T <sub>j</sub> =25	-	-	0.2
	I <sub>RRM2</sub>		V <sub>RM</sub> =V <sub>RRM</sub> T <sub>j</sub> =125	-	-	50
Junction capacitance	C <sub>j</sub>	pF	1MHz and Applied Reverse Voltage of 4.0 V.D.C	600	900	1300

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS

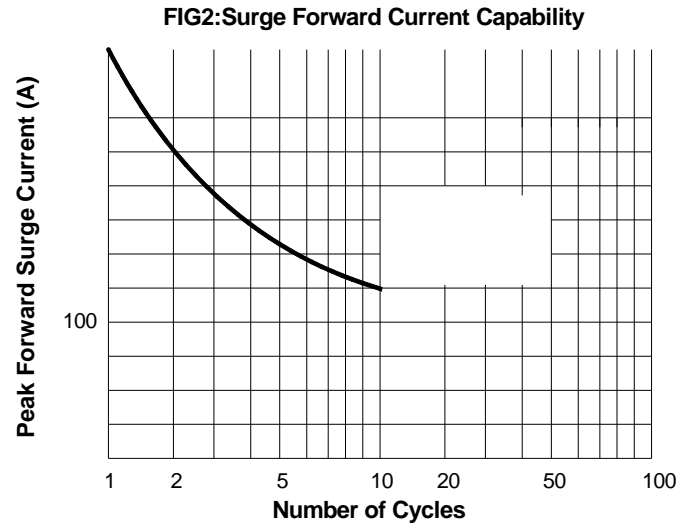


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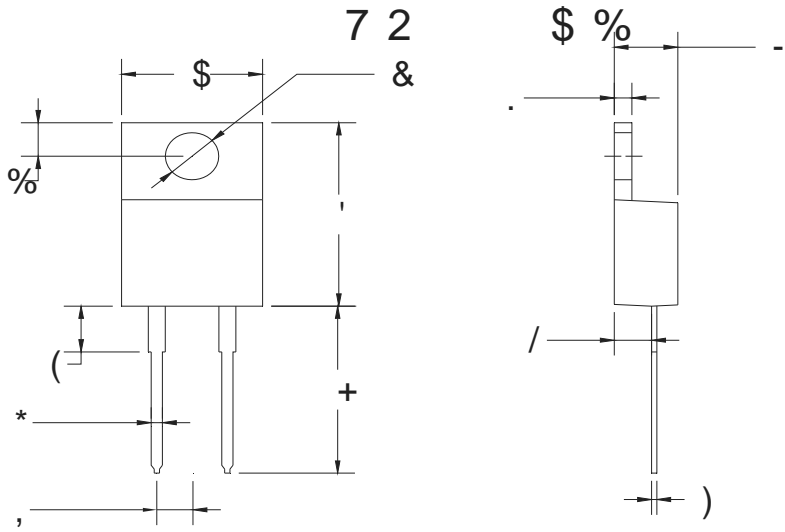
**Thermal Characteristics**  $T_a=25$  Unless otherwise specified

PARAMETER		SYMBOL	UNIT	MBR4045CT
Thermal Resistance	Between junction and ambient	$R_{J-A}$	/W	60.0
	Between junction and case	$R_{J-C}$	/W	2.0

## Characteristics (Typical)



v2XWOLQH 'LPHQVLRQV





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## Disclaimer

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