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**: Plated leads, solderable per J-STD-002 and JESD22-B102

- **Polarity**: As marked

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MBR4045CT
Device marking code			MBR4045CT
Repetitive Peak Reverse Voltage	V_{RRM}	V	45
Average Rectified Output Current @60Hz sine wave, R-load, Tc=126	I_O	A	40
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25	I_{FSM}	A	300
Current Squared Time @1ms≤t≤8.3ms Tj=25	I^2t	A^2s	373
Storage Temperature	T_{stg}		-55 ~ +150
Junction Temperature	Tj		-55 ~ +150

■Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V_{FM}					
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	mA	$V_{RM}=V_{RRM}$ Tj=25	-	-	0.2
	I_{RRM2}		$V_{RM}=V_{RRM}$ Tj=125	-	-	50
Junction capacitance	Cj	pF	1MHz and Applied Reverse Voltage of 4.0 V.D.C	600	900	1300

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

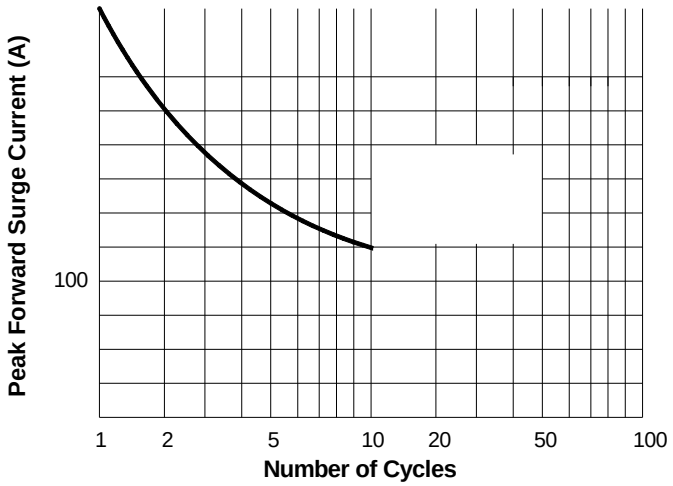
Note2:Pulse test:pulse widh 40mS

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

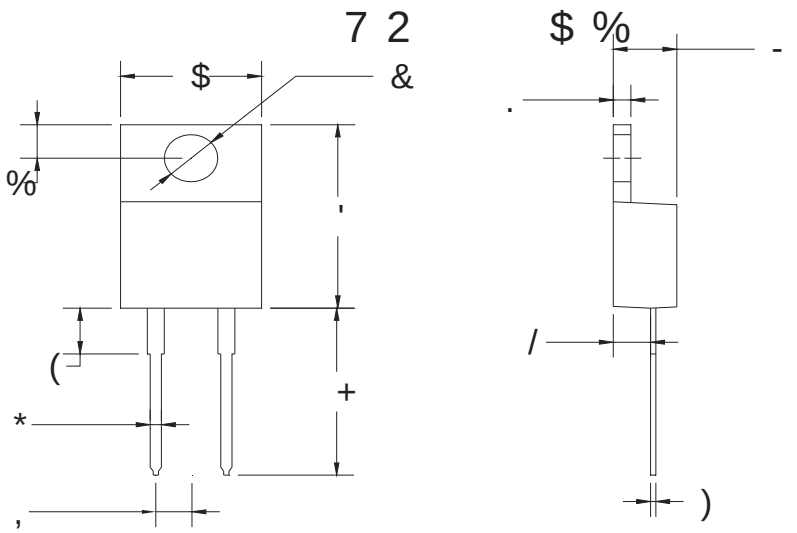
PARAMETER		SYMBOL	UNIT	MBR4045CT
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	/W	60.0
	Between junction and case	$R_{\theta J-C}$	/W	2.0

■**Characteristics** (Typical)

FIG2:Surge Forward Current Capability



v2 X W O L Q H ' L P H Q V L R Q V



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