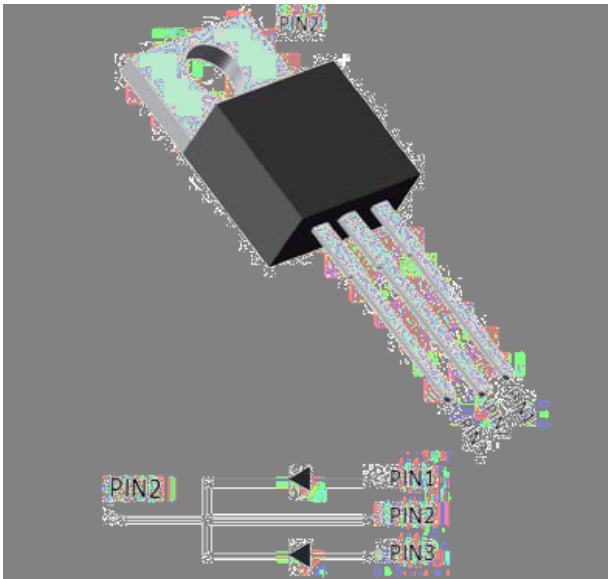


## Schottky Diodes



### Features

- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guarantee : TO-220AB
- Soldering compound meets UL 94 V-0 flammability
- RoHS-compliant

**Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

**Polarity:** As marked

### Maximum Ratings ( $T_a=25$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR3045CTS
Device marking code			MBR3045CTS
Repetitive Peak Reverse Voltage	VRRM	V	45
Average Rectified Output Current @60Hz sine wave, R-load, $T_c=111$	IO	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave,1 cycle, $T_a=25$	IFSM	A	200
Current Squared Time @1ms $t \leq 8.3ms$ $T_j=25$	$I^2t$	A <sup>2</sup> s	166
Storage Temperature	$T_{stg}$		-55 ~ +150
Junction Temperature	$T_j$		-55 ~ +150

### Electrical Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR3045CTS
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=15.0A	0.65
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM1</sub>	mA	V <sub>RM</sub> =V <sub>RRM</sub> $T_a=25$	0.2
	I <sub>RRM2</sub>		V <sub>RM</sub> =V <sub>RRM</sub> $T_a=100$	20

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

Note2:Pulse test:pulse width 40mS



# MBR3045CTS-B1-W5038HF

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

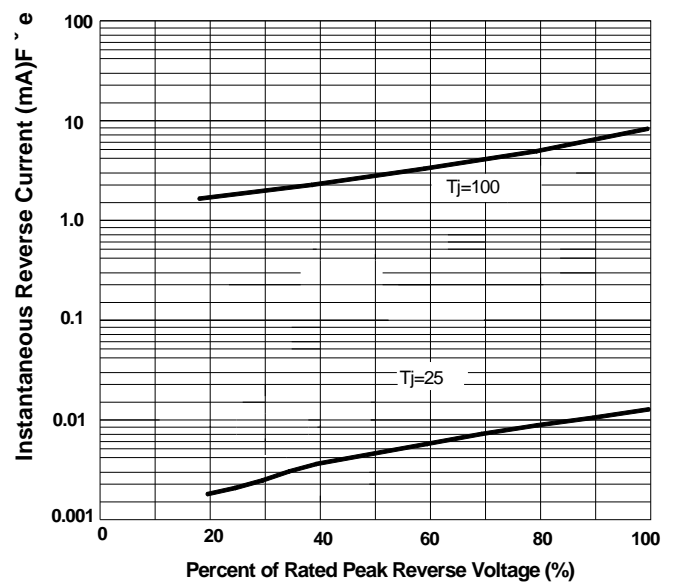
PARAMETER		SYMBOL	UNIT	MBR3045CTS
Thermal Resistance	Between junction and case	R J-C	$^{\circ}W$	2.0

**Ordering Information (Example)**

PREFERRED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR3045CTS	Approximate 1.9	50	1000	5000	Tube

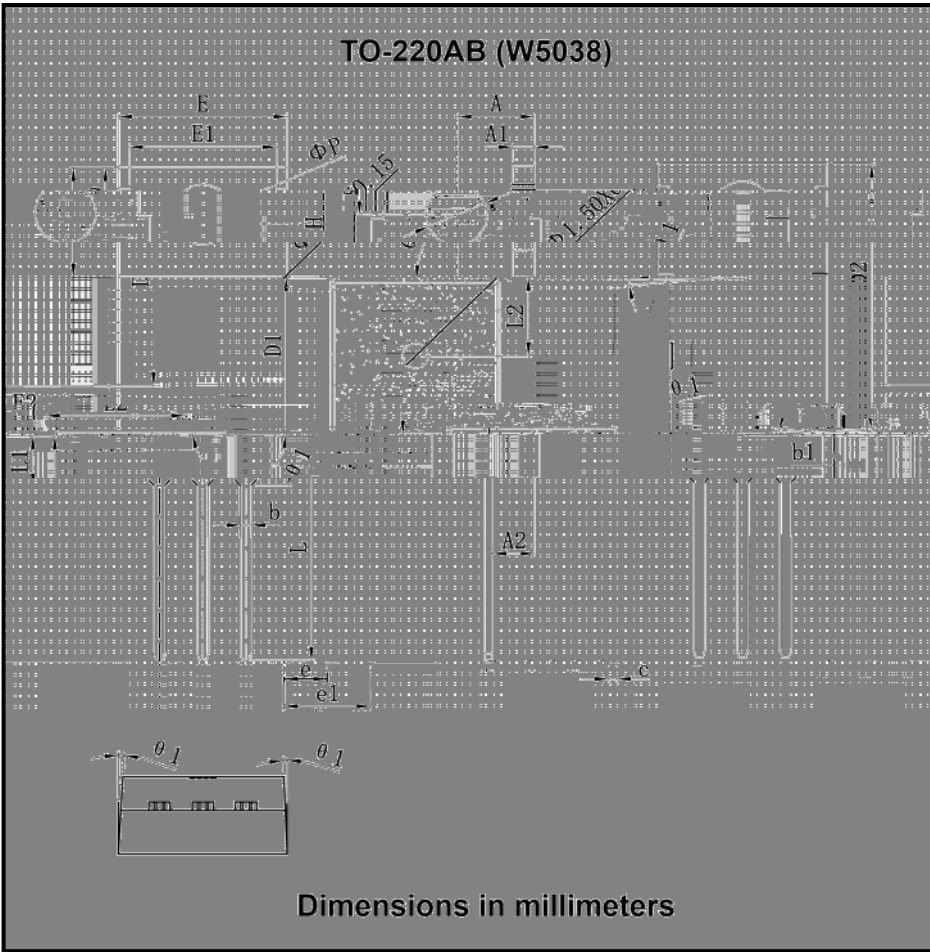
**Characteristics (Typical)**

FIG.4: Typical Reverse Characteristics





Outline Dimensions



TO-220AB (W5038)		
Dim	Min	Max
A	4.40	4.60
A1	1.25	1.35
A2	2.30	2.50
b	0.75	0.85
b1	1.25	1.42
C	0.45	0.55
D1	9.10	9.30
D2	12.90	13.30
E	9.80	10.15
E1	8.55	8.85
E2	7.80	8.20
e	2.50	2.58
e1	5.08 REF	
H	6.40	6.60
L	13.00	13.18
L1		3.40
L2	4.55	4.75
P	3.60	3.75
Q	2.70	2.90
1	2°	7°



## MBR3045CTS-B1-W5038HF

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