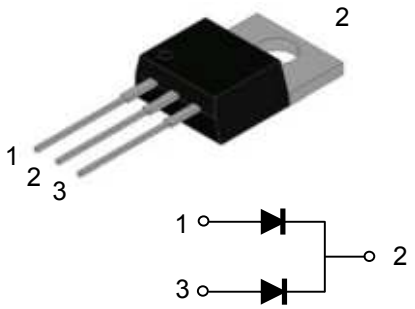
MBR3040CT to MBR30200CT

Schottky Barrier Rectifiers

Main product characteristics

$I_{F(AV)}$	30A (2 x 15A)
V_{RRM}	40V to 200V
$T_{j(MAX)}$	175ºC

RoHS COMPLIANT



TO-220AB

Features and benefits

- Plastic package with UL 94V-0 flammability classification
- Flame retardant epoxy molding component
- Guardring for overvoltage protection
- Low power loss, high efficiency
- RoHS compliant (2002/95/EC)

Description and applications

Double Schottky configuration for use in low voltage, high frequency inverters, free wheeling and polarity protection applications. The Metal silicon junction means the devices are majority carrier conduction leading to low power loss and high efficiency.

Electrical characteristics(1)

Symbol	Parameter	MBR3040CT	MBR3045CT	MBR3050CT	MBR3060CT	MBR3080CT	MBR3090CT	MBR30100CT	MBR30150CT	MBR30200CT	Unit
V_{RRM}	Max Peak Repetitive Reverse Voltage	40	45	50	60	80	90	100	150	200	V
$V_{R(RMS)}$	Max RMS Reverse Voltage	28	31.5	35	42	56	63	70	105	140	V
V_R	Max DC Blocking Voltage	40	45	50	60	80	90	100	150	200	V
$I_{F(AV)}$	Max average forward current (see fig.1)	30									A
I_{FSM}	Non repetitive peak forward surge current (8.3ms single half sine wave)	275									A
V_F	Max forward voltage @ 15A (per leg)	0.70		0.75		0.80			0.90		V
I_R(2)	Maximum instantaneous T_J = 25ºC	0.05									mA
	reverse current at rated V_R T_J = 125ºC	20									
T_{STG}, T_J	Storage and Junction temperature	-55 to +150	-65 to +175								ºC

(1) All ratings at 25ºC unless specified otherwise
(2) Measured with a test pulse of 380µs to minimize self-heating effect

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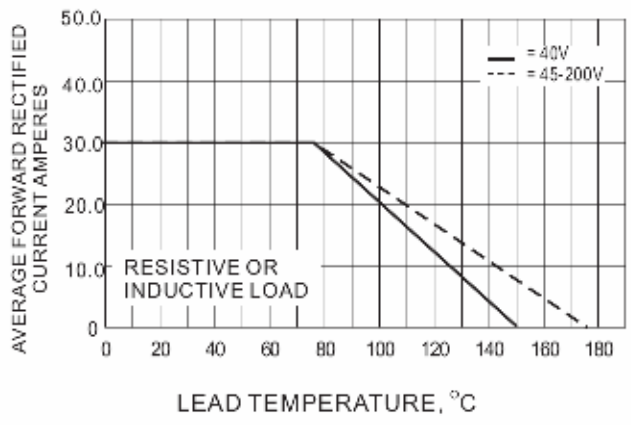


Fig.1 *Forward current derating curve. For capacitive load derate by 20%*

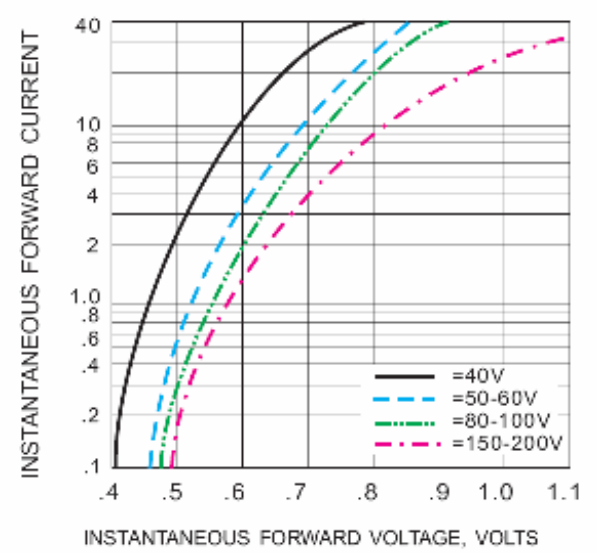


Fig.2 *Typical instantaneous forward characteristics*

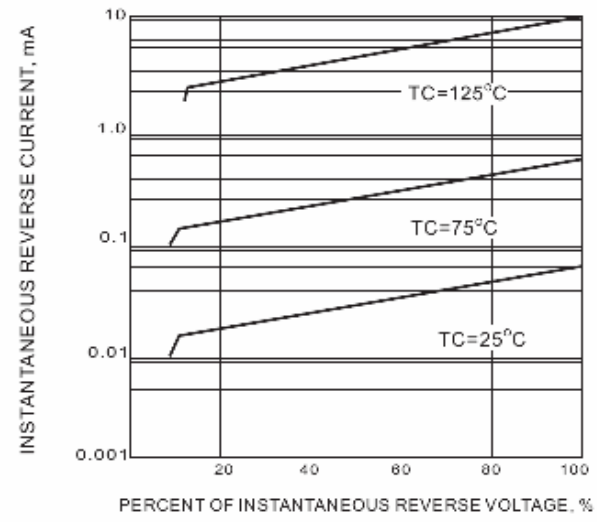


Fig.3 *Typical reverse characteristics*

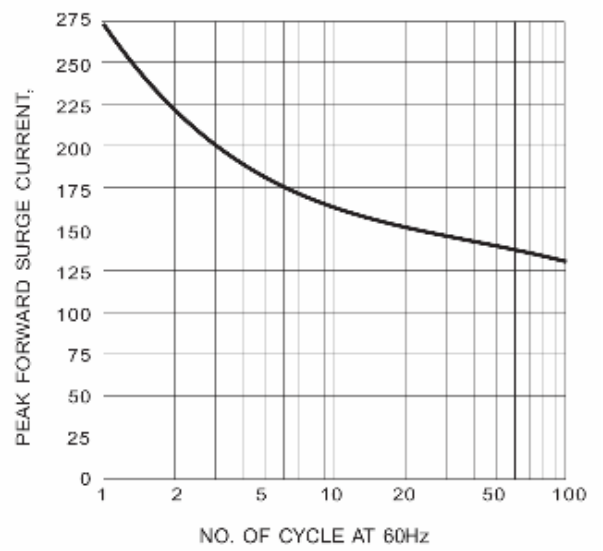


Fig.4 *Maximum non repetitive surge current*

Thermal Characteristics

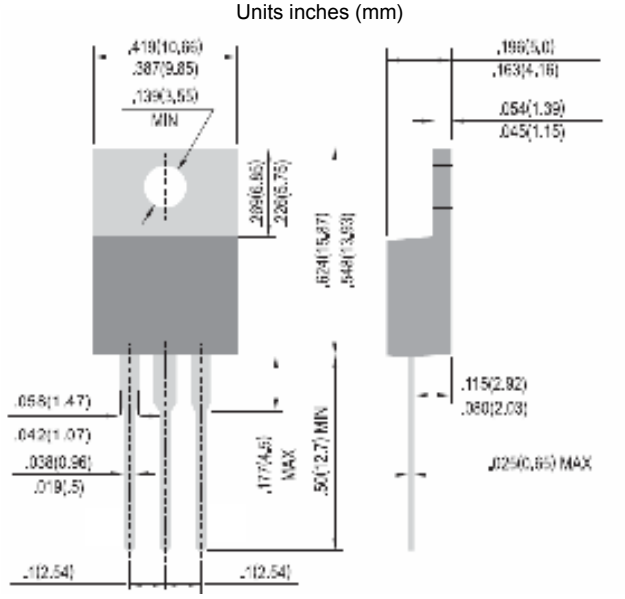
Symbol	Parameter	Value	Unit
$R_{\Theta JC}$	Junction to case	1.4	ºC/W

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Mechanical Characteristics

Physical dimensions

Units inches (mm)



Ordering information

Product order code	Marking	Package	Weight	Base qty	Delivery mode
MBR30xxxCTe3/TU	MSC yyww MBR30xxxCT → | ←	TO-220AB	1.895 g	2000	Tube

Commercial Business Unit
Microsemi Corporation

Microsemi Commercial Offshore de Macau Limitada
Avenida Doutor Mario Soares
Bank of China Building, 18/F, Unit D
Macau SAR

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