

### Main Product Characteristics

$I_{F(AV)}$	2 X 5A
$V_{RRM}$	60V
$T_J$	150°C
$V_{F(Typ)}$	0.47V

### Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

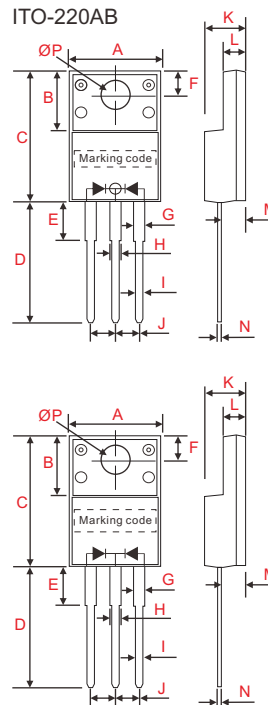
### Mechanical Data

- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC ITO-220AB molded plastic body.
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Weight : Approximated 2.25 gram.

### Maximum Ratings

Rating at 25°C ambient temperature unless otherwise specified.

### Outline



symbol	Dimensions in inches(millimeters)	
	Min	Max
A	0.390(9.9)	0.408(10.36)
B	0.268(6.8)	0.283(7.2)
C	0.583(14.8)	0.598(15.2)
D	0.512(13.0)	0.543(13.8)
E	0.102(2.6)	0.150(3.8)
F	0.101(2.55)	0.112(2.85)
G	0.043(1.1)	0.053(1.35)
H	0.043(1.1)	0.053(1.35)
I	0.020(0.5)	0.028(0.7)
J	0.098(2.49)	0.102(2.59)
K	0.169(4.3)	0.185(4.7)
L	0.112(2.85)	0.128(3.25)
M	0.098(2.5)	0.114(2.9)
N	0.020(0.5)	0.028(0.7)
ØP	0.130(3.3)	0.134(3.5)

### Alternate

symbol	Dimensions in inches(millimeters)	
	Min	Max
A	0.383(9.72)	0.404(10.27)
B	0.248(6.3)	0.272(6.9)
C	0.571(14.5)	0.610(15.5)
D	0.516(13.1)	0.547(13.9)
E	-	0.161(4.1)
F	0.094(2.4)	0.126(3.2)
G	0.039(1.0)	0.051(1.3)
H	0.039(1.0)	0.051(1.3)
I	0.020(0.5)	0.035(0.9)
J	0.095(2.41)	0.105(2.67)
K	0.169(4.3)	0.189(4.8)
L	0.055(1.4)	0.122(3.1)
M	0.091(2.3)	0.117(2.96)
N	0.014(0.35)	0.031(0.8)
ØP	0.122(3.1)	0.142(3.6)

Dimensions in inches and (millimeters)

### Circuit Diagram



Parameter	Condition	Symbol	MBRF10L60CT-T	UNIT
Working peak reverse voltage		$V_{RWM}$	60	V
Forward Rectified Current (total device)		$I_O$	10	A
Forward Surge Current (per diode)	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	150	A
Peak Repetitive Reverse Surge Current (per diode)	Pulse width 2us, 1000Hz, square wave at $T_A$ 25°C, 10 cycles	$I_{RRM}$	2	A
Thermal Resistance (per diode)	Junction to case	$R_{BJC}$	8	°C/W
	Junction to ambient	$R_{BJA}$	50	
Storage Temperature		$T_{STG}$	-55 ~ +150	°C
Operating Junction Temperature		$T_J$	-55 ~ +150	°C

### Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Parameter	Condition	Symbol	MIN.	TYP.	MAX.	UNIT
Forward Voltage Drop (per diode)	$I_F = 3A, T_J = 25^\circ C$	$V_F$		470		mV
	$I_F = 5A, T_J = 25^\circ C$			520	580	
	$I_F = 5A, T_J = 125^\circ C$			470		
Reverse Current (per diode)	$V_R = 60V, T_J = 25^\circ C$	$I_R$		0.005	0.1	mA
	$V_R = 60V, T_J = 125^\circ C$			3	40	
Reverse Breakdown Voltage (per diode)	$I_R = 0.1mA, T_J = 25^\circ C$	$V_{BR}$	60			V

Rating and Characteristic Curves

Fig. 1 - Forward Characteristics

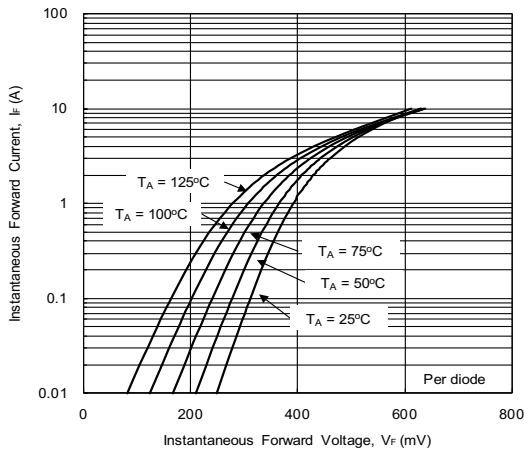


Fig. 2 - Reverse Characteristics

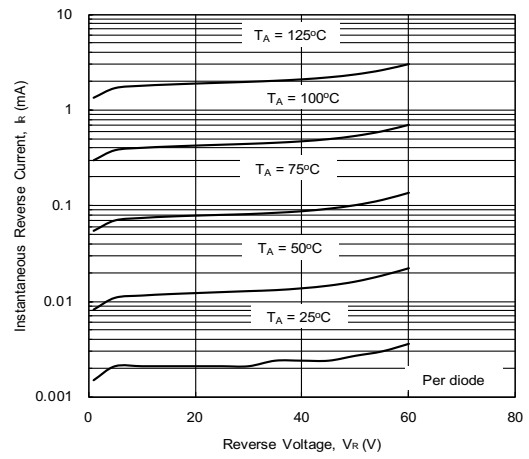


Fig. 3 - Forward Power Dissipation

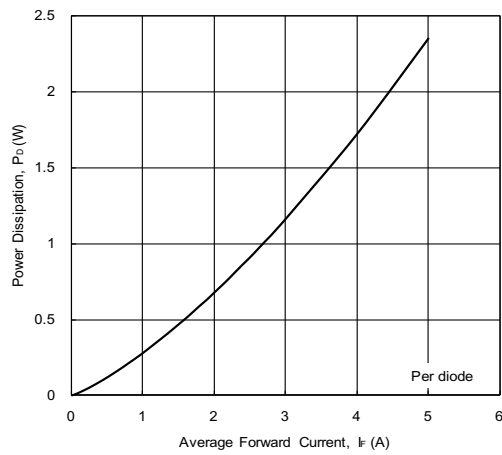


Fig. 4 - Forward Current Derating Curve

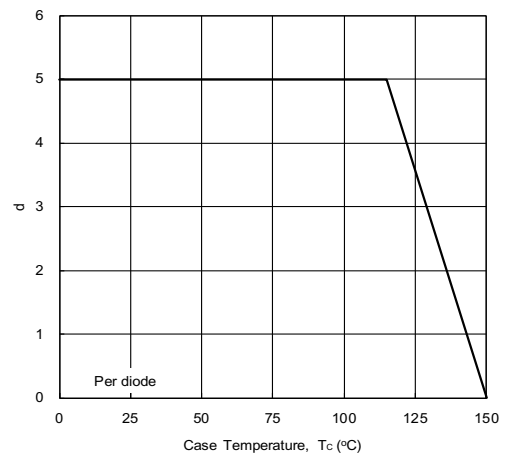
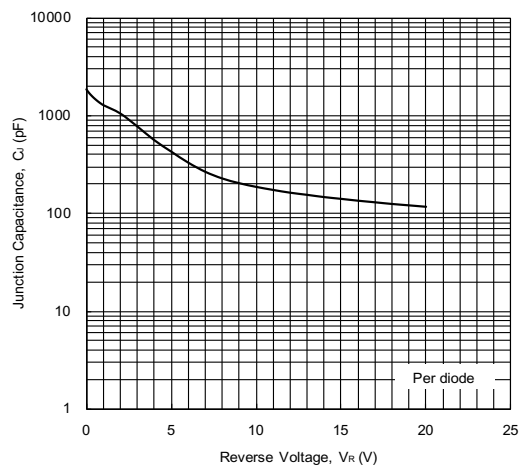
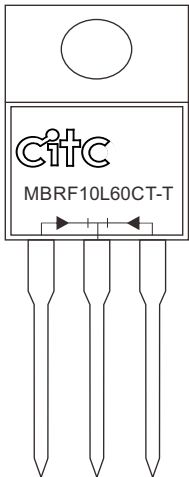



Fig. 5 - Junction Capacitance



■ Marking Information



MBRF10L60CT-T : Product type marking code

 : CITC Logo

■ Ordering / Packing Information

Part number		Case	Q'TY/Tube (PCS)	Q'TY/Box (PCS)	Q'TY/Carton (PCS)
Halogen	MBRF10L60CT-T	ITO-220AB	50	1000	5000
Halogen free	MBRF10L60CTG-T				

Notes : 1. For packaging details please reference our website at <http://www.citcorp.com.tw/tchinese/products/index.php>

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