THERMAL PERFORMANCE

PARAMETER		SYMBOL	TYP	UNIT
Junction-to-case thermal resistance	MBR3035CT MBR3045CT MBR3050CT MBR3060CT	$R_{\Theta JC}$	1.0	°C/W
Junction-to-case thermal resistance	MBR3090CT MBR30100CT MBR30150CT	$R_{\Theta JC}$	1.5	°C/W

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)

PARAMETER		CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode[1]	MBR3035CT MBR3045CT	I_F = 15A, T_J = 25°C	V_F	-	0.70	V
	MBR3050CT MBR3060CT			-	0.77	V
	MBR3090CT MBR30100CT			-	0.84	V
	MBR30150CT			-	0.95	V
	MBR3035CT MBR3045CT	I_F = 30A, T_J = 25°C		-	0.82	V
	MBR3050CT MBR3060CT			-	-	V
	MBR3090CT MBR30100CT			-	0.94	V
	MBR30150CT			-	1.02	V
	MBR3035CT MBR3045CT	I_F = 15A, T_J = 125°C		-	0.60	V
	MBR3050CT MBR3060CT			-	0.67	V
	MBR3090CT MBR30100CT			-	0.70	V
	MBR30150CT			-	0.92	V
	MBR3035CT MBR3045CT	I_F = 30A, T_J = 125°C		-	0.73	V
	MBR3050CT MBR3060CT			-	-	V
	MBR3090CT MBR30100CT			-	0.82	V
	MBR30150CT			-	0.98	V
Reverse current @ rated V_R per diode[2]	MBR3035CT MBR3045CT MBR3050CT MBR3060CT MBR3090CT MBR30100CT	T_J = 25°C	I_R	-	200	μA
	MBR30150CT			-	100	μA
	MBR3035CT MBR3045CT	T_J = 125°C		-	15	mA
	MBR3050CT MBR3060CT			-	10	mA
	MBR3090CT MBR30100CT			-	7.5	mA
	MBR30150CT			-	5	mA

Notes:

1. Pulse test with PW = 0.3ms
2. Pulse test with PW = 30ms

ORDERING INFORMATION

ORDERING CODE[1][2]	PACKAGE	PACKING
MBR30xCT	TO-220AB	50 / Tube
MBR30xCTH	TO-220AB	50 / Tube

Notes:

1. "x" defines voltage from 35V(MBR3035CT) to 150V(MBR30150CT)
2. "H" means AEC-Q101 qualified

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

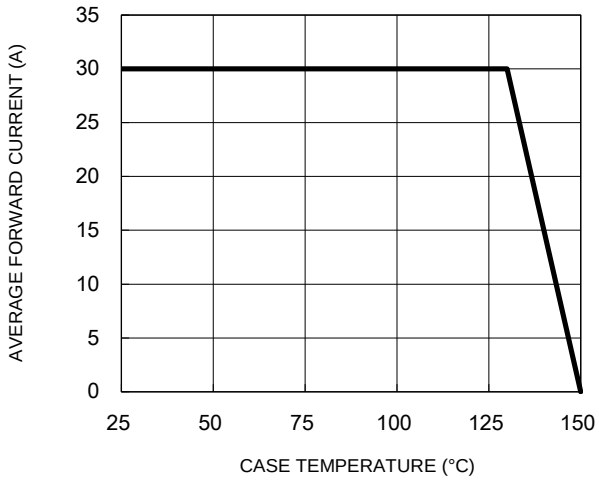


Fig.2 Typical Junction Capacitance

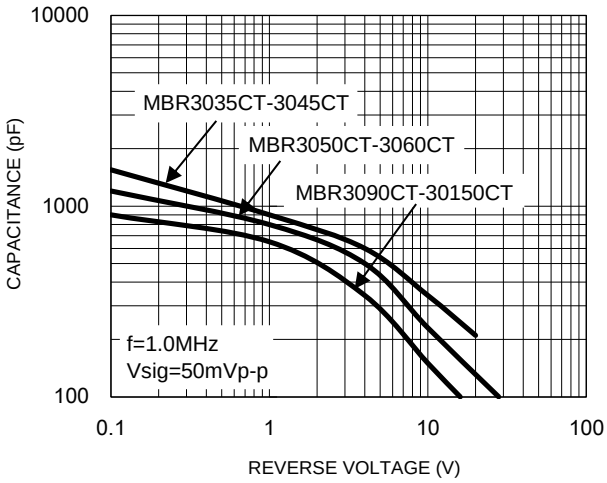


Fig.3 Typical Reverse Characteristics

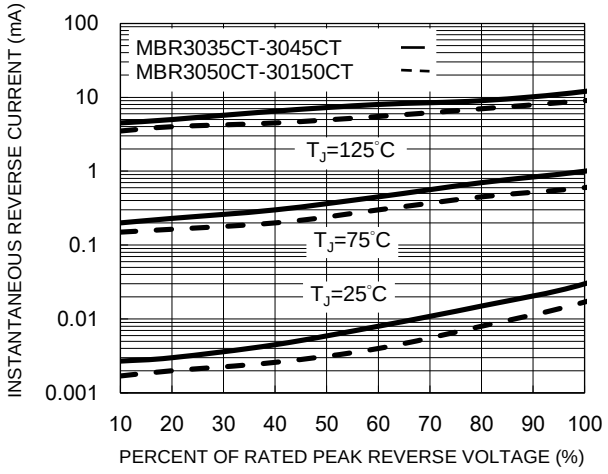


Fig.4 Typical Forward Characteristics

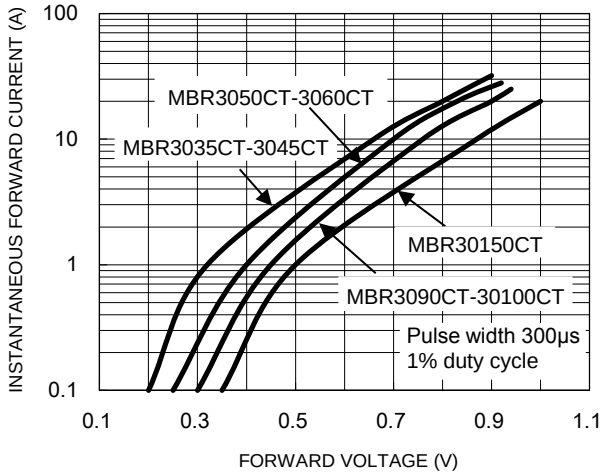
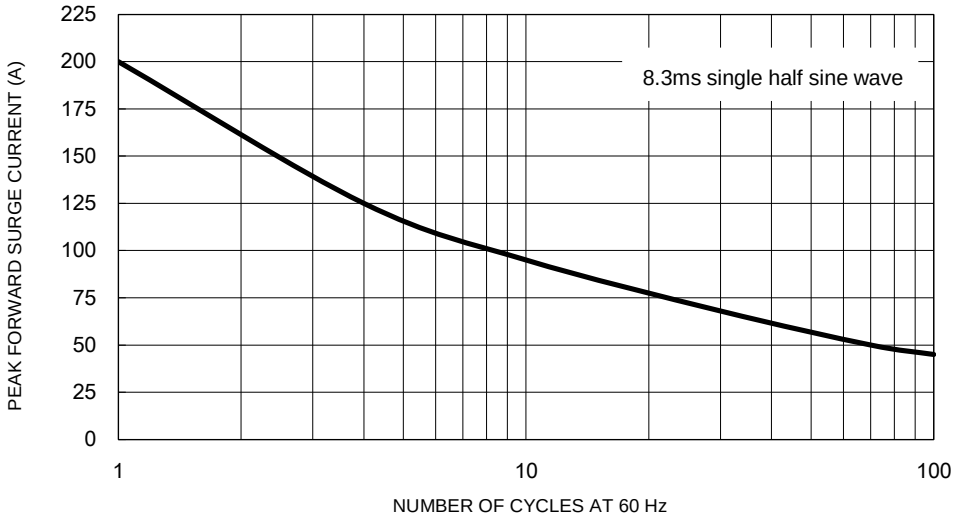


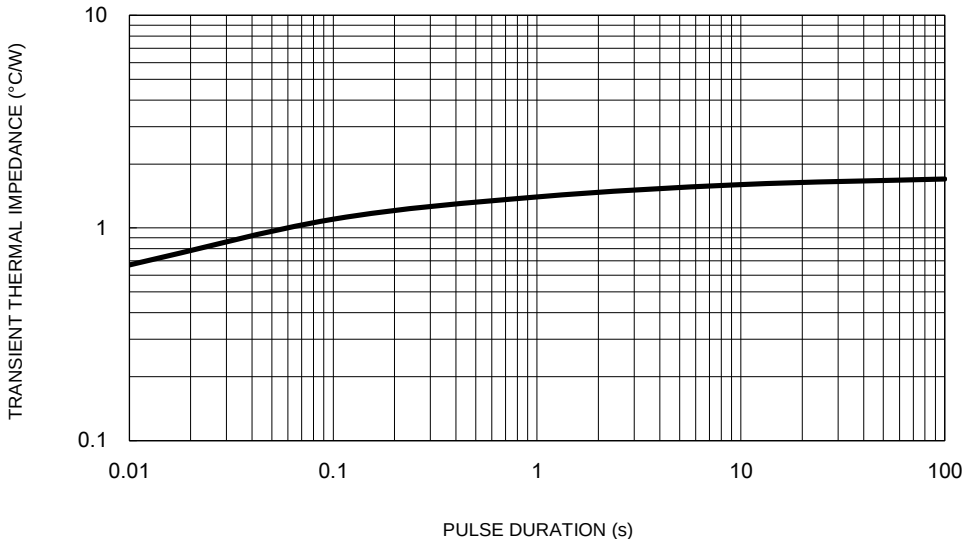
Fig.5 Maximum Non-Repetitive Forward Surge Current



CHARACTERISTICS CURVES

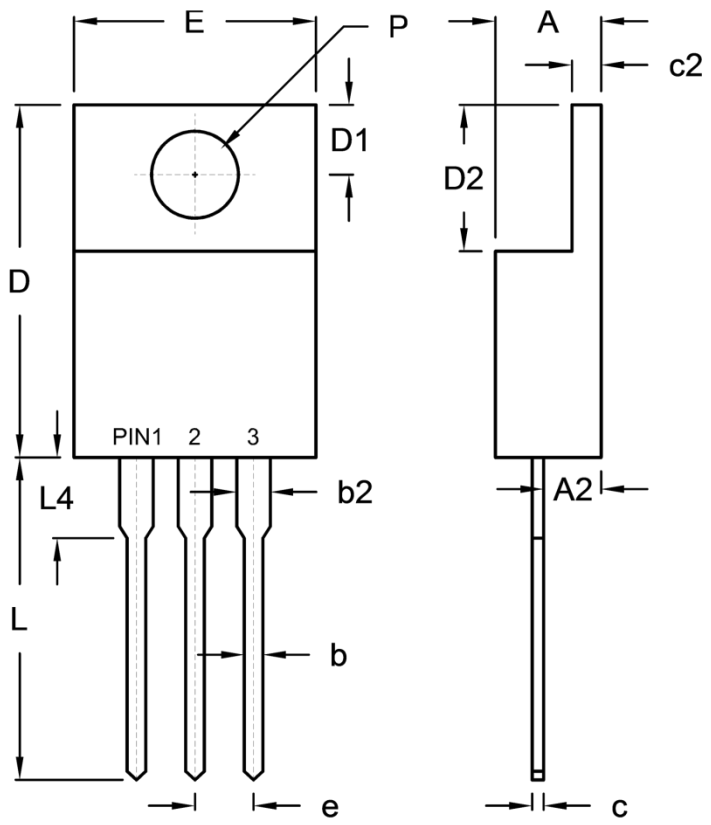
(T_A = 25°C unless otherwise noted)

Fig.6 Typical Transient Thermal Impedance



PACKAGE OUTLINE DIMENSIONS

TO-220AB



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	4.42	4.76	0.174	0.187
A2	2.20	2.80	0.087	0.110
b	0.68	0.94	0.027	0.037
b2	1.14	1.77	0.045	0.070
c	0.35	0.64	0.014	0.025
c2	1.14	1.40	0.045	0.055
D	14.60	16.00	0.575	0.630
D1	2.62	3.44	0.103	0.135
D2	5.84	6.86	0.230	0.270
E	-	10.50	-	0.413
e	2.41	2.67	0.095	0.105
L	13.19	14.79	0.519	0.582
L4	2.80	4.20	0.110	0.165
P	3.54	4.00	0.139	0.157

MARKING DIAGRAM

P/N = Marking Code
G = Green Compound
YWW = Date Code
F = Factory Code

Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies.

Purchasers are solely responsible for the choice, selection, and use of TSC products and TSC assumes no liability for application assistance or the design of Purchasers' products.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Taiwan Semiconductor:

MBR30100CT MBR3045CT MBR3060CT MBR30150CT MBR30100CTH MBR30150CTH MBR3045CTH