THERMAL PERFORMANCE			
PARAMETER	**SYMBOL**	**TYP**	**UNIT**
Junction-to-ambient thermal resistance	$R_{\Theta JA}$	60	°C/W
Junction-to-case thermal resistance	$R_{\Theta JC}$	2	°C/W

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

PARAMETER		CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage[1]	MBRS1035 MBRS1045	I_F = 10A, T_J = 25°C	V_F	-	-	V
	MBRS1050 MBRS1060			-	0.80	V
	MBRS1090 MBRS10100			-	0.85	V
	MBRS10150			-	1.05	V
	MBRS1035 MBRS1045	I_F = 20A, T_J = 25°C		-	0.84	V
	MBRS1050 MBRS1060			-	0.95	V
	MBRS1090 MBRS10100			-	-	V
	MBRS10150			-	-	V
	MBRS1035 MBRS1045	I_F = 10A, T_J = 125°C		-	0.57	V
	MBRS1050 MBRS1060			-	0.70	V
	MBRS1090 MBRS10100			-	0.71	V
	MBRS10150			-	-	V
	MBRS1035 MBRS1045	I_F = 20A, T_J = 125°C		-	0.72	V
	MBRS1050 MBRS1060			-	0.85	V
	MBRS1090 MBRS10100			-	-	V
	MBRS10150			-	-	V

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)						
PARAMETER		**CONDITIONS**	**SYMBOL**	**TYP**	**MAX**	**UNIT**
Reverse current @ rated V_R (2)	MBRS1035 MBRS1045 MBRS1050 MBRS1060 MBRS1090 MBRS10100 MBRS10150	T_J = 25°C	I_R	-	100	μA
	MBRS1035 MBRS1045	T_J = 100°C		-	15	mA
	MBRS1050 MBRS1060			-	10	mA
	MBRS1090 MBRS10100 MBRS10150			-	-	mA
	MBRS1035 MBRS1045 MBRS1050 MBRS1060	T_J = 125°C		-	-	mA
	MBRS1090 MBRS10100 MBRS10150			-	5	mA

Notes:

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

ORDERING INFORMATION		
ORDERING CODE(1)	**PACKAGE**	**PACKING**
MBRS10x	TO-263AB (D^2PAK)	800 / Tape & Reel

Notes:

1. “x” defines voltage from 35V(MBRS1035) to 150V(MBRS10150)

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

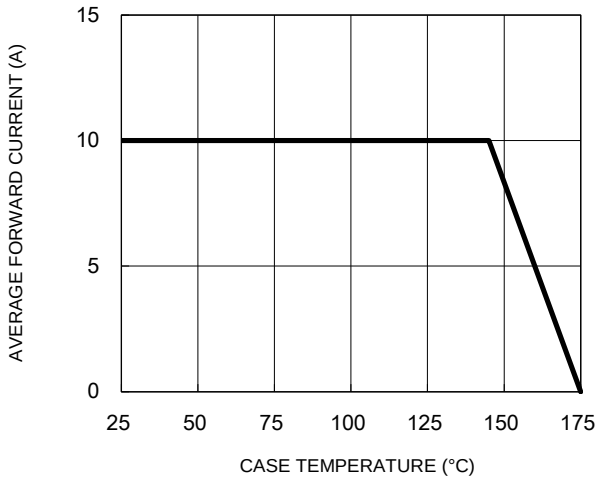


Fig.2 Typical Junction Capacitance

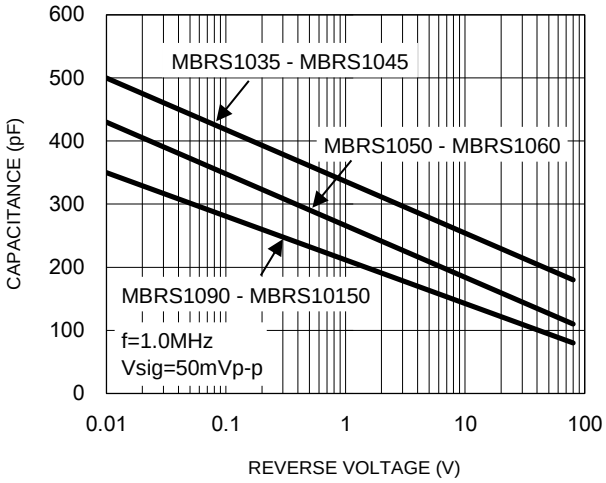


Fig.3 Typical Reverse Characteristics

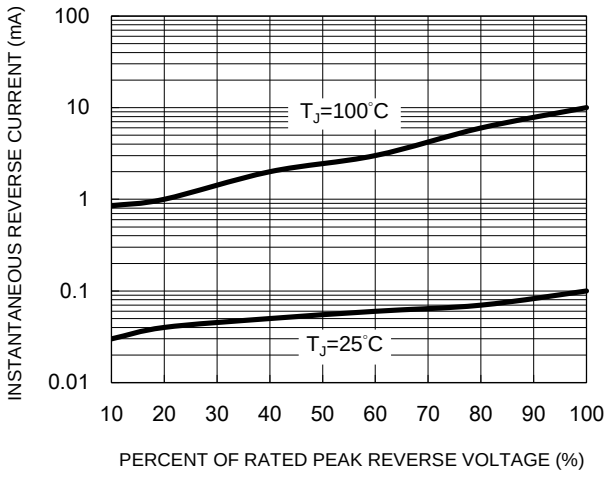


Fig.4 Typical Forward Characteristics

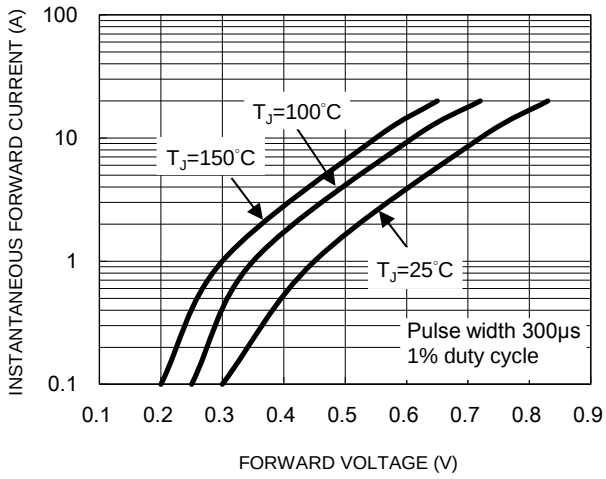
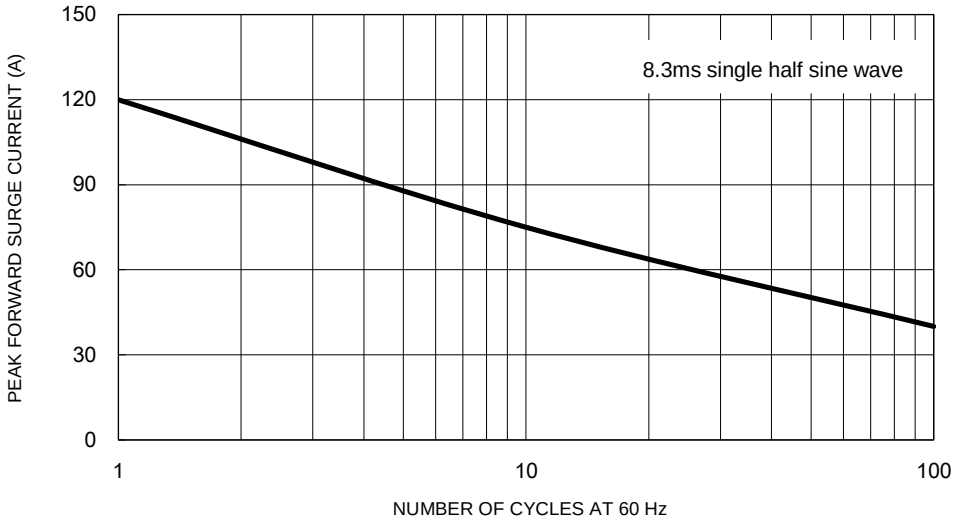


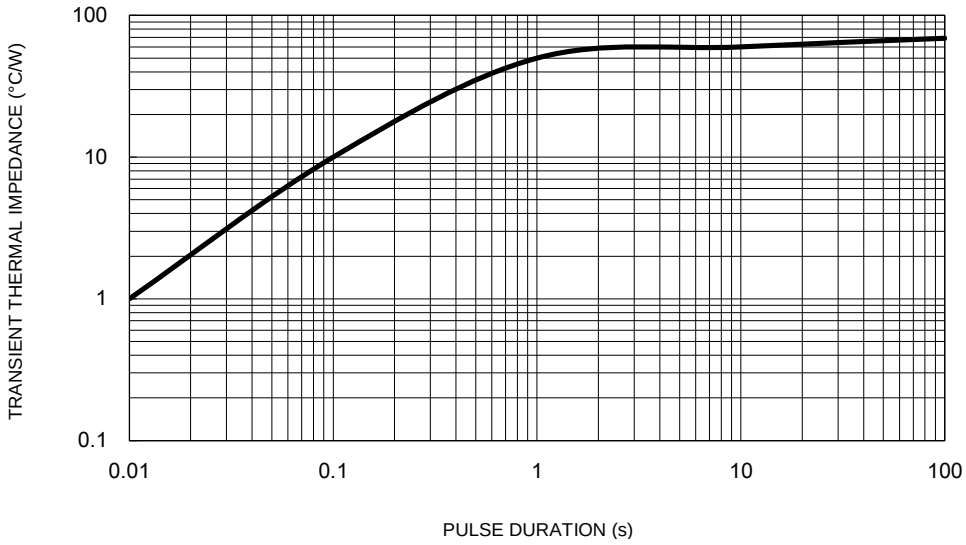
Fig.5 Maximum Non-Repetitive Forward Surge Current



CHARACTERISTICS CURVES

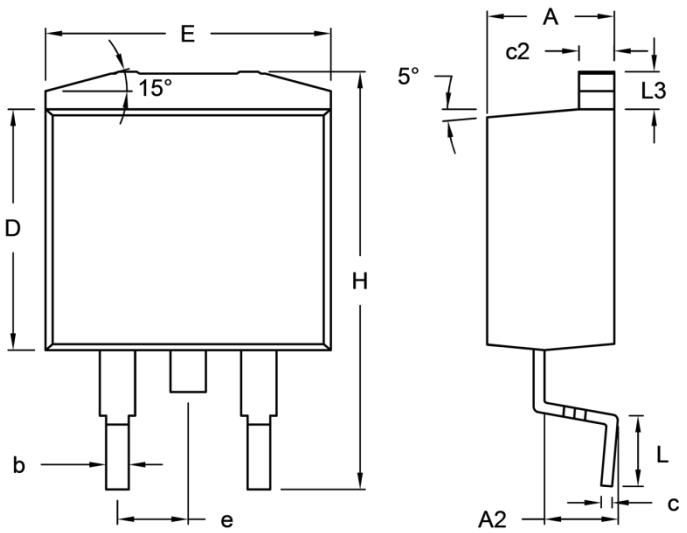
(T_A = 25°C unless otherwise noted)

Fig.6 Typical Transient Thermal Impedance



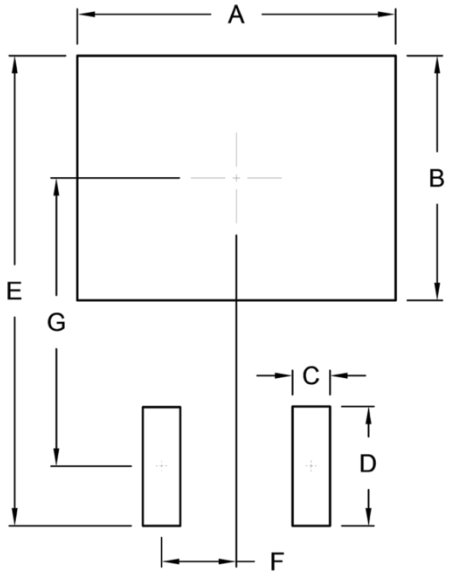
PACKAGE OUTLINE DIMENSIONS

TO-263AB (D^2PAK)



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	4.44	4.70	0.175	0.185
A2	2.03	2.79	0.080	0.110
b	0.68	0.94	0.027	0.037
c	0.36	0.53	0.014	0.021
c2	1.14	1.40	0.045	0.055
D	8.25	9.25	0.325	0.364
E	-	10.50	-	0.413
e	2.41	2.67	0.095	0.105
H	14.60	15.88	0.575	0.625
L	2.29	2.79	0.090	0.110
L3	1.14	1.40	0.045	0.055

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	10.80	0.425
B	8.30	0.327
C	1.27	0.050
D	4.05	0.159
E	15.95	0.628
F	2.54	0.100
G	9.775	0.385

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:

MBRS10100 MBRS1045 MBRS1060 MBRS10150