



**SCHOTTKY BARRIER RECTIFIERS**

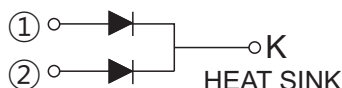
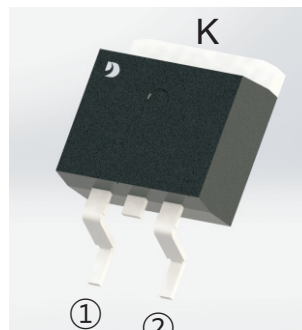
Reverse Voltage - 40 to 200 V

Forward Current - 20 A

**FEATURES**

- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

**TO-263W(D<sup>2</sup>PAK)**



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified

CHARACTERISTICS	SYMBOL	MBR2040GT	MBR2045GT	MBR2060GT	MBR20100GT	MBR20150GT	MBR20200GT	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	45	60	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	28	32	42	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	45	60	100	150	200	V
Maximum Average Forward Rectified Current per diode per device	$I_{F(AV)}$	10 20						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) per diode	$I_{FSM}$	150						A
Max Instantaneous Forward Voltage at 10 A DC Per leg	$V_F$	0.70		0.75	0.85	0.90	0.92	V
Maximum DC Reverse Current at Rated DC Reverse Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	$I_R$	0.1 20			0.05 20			mA
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	600		400				pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	45						°C/W
Operating Junction Temperature Range	$T_j$	-55 ~ +150				-55 ~ +175		°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150				-55 ~ +175		°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 10cmX10cmX1mm copper pad areas.



Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

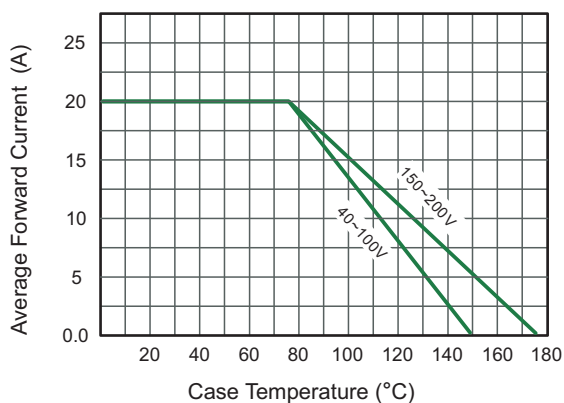


Fig.2 Typical Reverse Characteristics

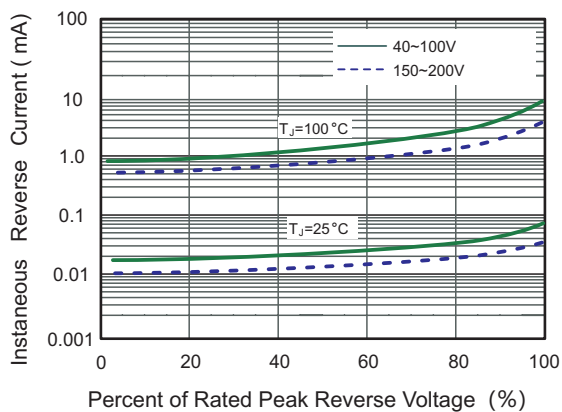


Fig.3 Typical Forward Characteristic(per leg)

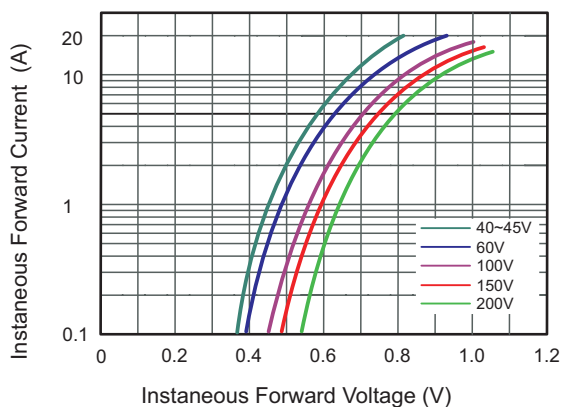


Fig.4 Typical Junction Capacitance

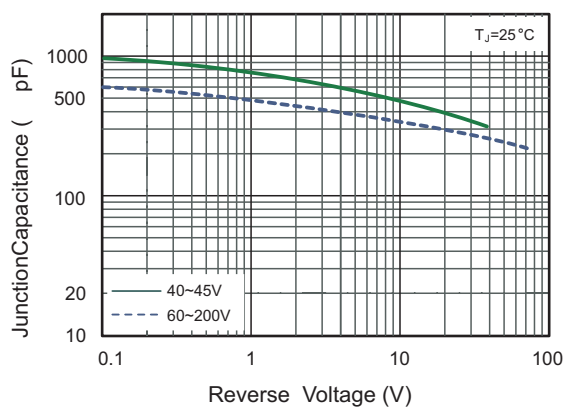


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

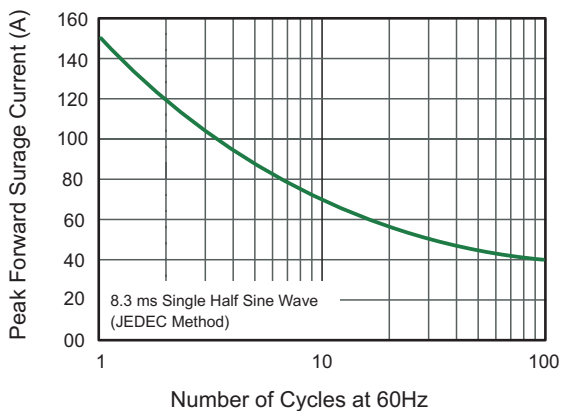
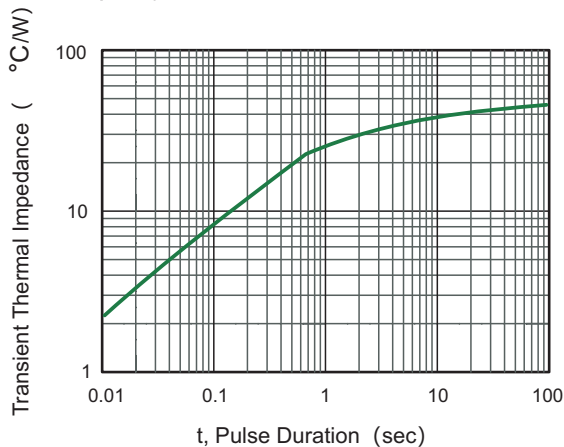
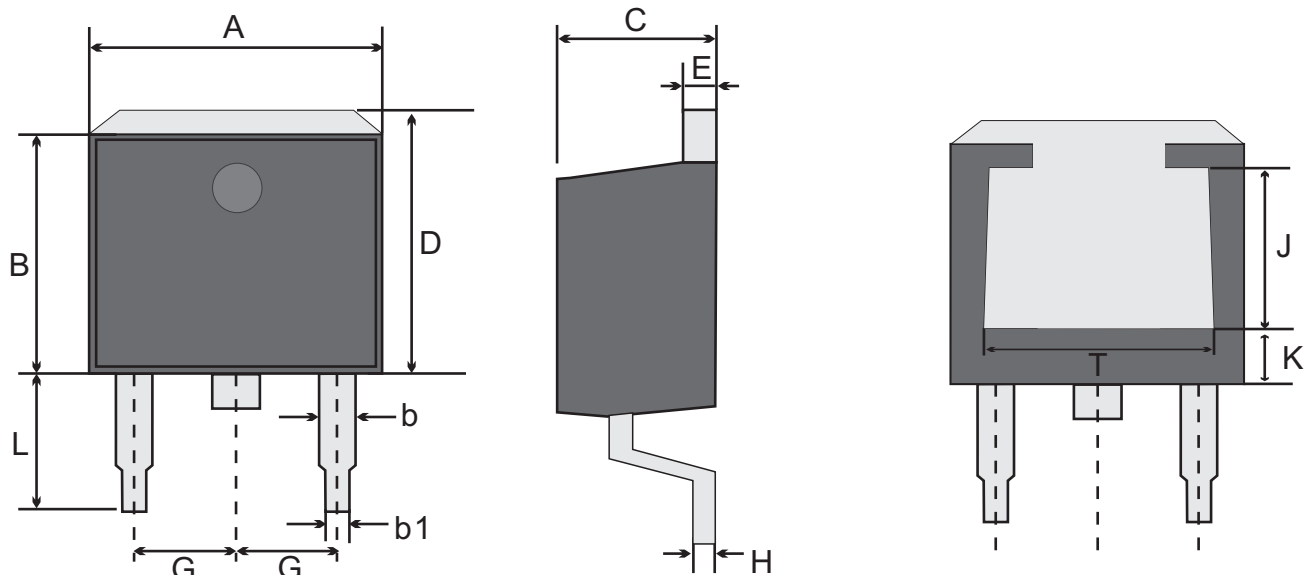


Fig.6- Typical Transient Thermal Impedance





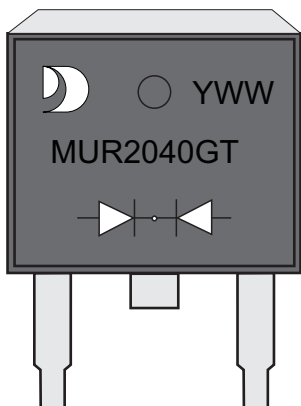
### TO-263(D<sup>2</sup>PAK) Package Outline Dimensions



TO-263W(D<sup>2</sup>PAK) mechanical data

UNIT		A	B	b	b1	C	D	E	G	H	L	J	T	K
mm	max	10.4	9.1	1.4	0.9	4.8	10.6	1.40	2.75	0.7	6.0	4.65 ref.	7.70 ref.	3.22 ref.
	typ	9.94	8.6	1.2	0.8	4.53	9.8	1.27	2.5	0.38	5.5			
	min	9.8	8.5	1.0		4.4	9.6	1.20	2.35	0.3	5.0			
mil	max	409	357	55	35	189	418	55	108	26	236	1.83 ref.	303 ref.	126 ref.
	typ	391	338	47		178	386	50	98	15	216			
	min	387	335	39		173	378	47	92	11	197			

### MARKING DIAGRAM



YWW: Date Code  
Y:Years(0~9)  
WW:Week  
MUR2040GT: Product name  
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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