



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT  
SWITCHING DIODE ARRAY**

**VOLTAGE 80 Volts CURRENT 250 mAmpere**

**MMBD4448WGP**

**APPLICATION**

\* Fast high speed switching

**FEATURE**

- \* Small surface mounting type. (SC-70/SOT-323)
- \* High speed. ( $T_{RR}=4.0nSec$  Max.)
- \* Fast Switching Speed.
- \* Ultra-Small Surface Mount Package.
- \* For General Purpose Switching Applications.
- \* High Conductance.

**CONSTRUCTION**

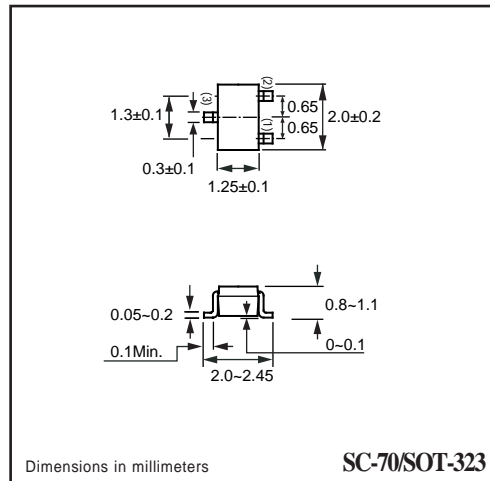
\* Silicon epitaxial planar

**MARKING**

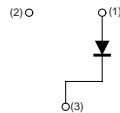
\* WD



**SC-70/SOT-323**



**CIRCUIT**



**MAXIMUM RATINGS** ( At  $T_A = 25^{\circ}C$  unless otherwise noted )

RATINGS	SYMBOL	MMBD4448WGP	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	Volts
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak Reverse Voltage Maximum DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_{DC}$	80	Volts
Maximum RMS Voltage	$V_{RMS}$	57	Volts
Maximum Average Forward Rectified Current	$I_O$	250	mAmps
Repetitive Peak Forward Current	$I_{FRM}$	500	mAmps
Peak Forward Surge Current at 1uSec.	@ 1Sec	2.0	Amps
	@ 1.0uSec	4.0	
Total Capacitance	$C_T$	3.5	pF
Maximum Reverse Recovery Time	$t_{rr}$	4.0	nSec
Maximum Thermal Resistance	$R_{\theta JA}$	625	$^{\circ}C/W$
Maximum Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	$^{\circ}C$

**ELECTRICAL CHARACTERISTICS** ( At  $T_A = 25^{\circ}C$  unless otherwise noted )

CHARACTERISTICS	SYMBOL	MMBD4448WGP	UNITS
Maximum Instantaneous Forward Voltage @ $I_F = 5.0$ mA @ $I_F = 100$ mA	$V_F$	0.72 1.0	Volts
Maximum Average Reverse Current (Note 1) $V_R = 20V$ @ $T_J = 25^{\circ}C$ $V_R = 75V$ @ $T_J = 150^{\circ}C$ $V_R = 25V$ @ $T_J = 150^{\circ}C$	$I_R$	25nA 50 30	uAmps

NOTES : 1. Short duration test pulse used to minimize self-heating effect.

2004-10

## RATING CHARACTERISTIC CURVES ( MMBD4448WGP )

FIG. 1 - FORWARD CHARACTERISTICS

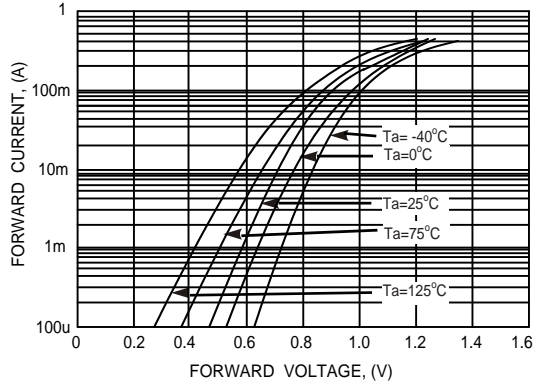


FIG. 2 - REVERSE CHARACTERISTICS

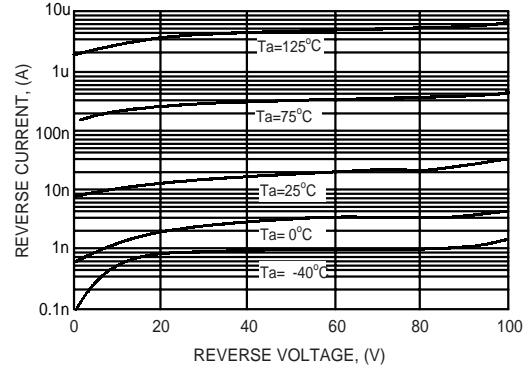


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

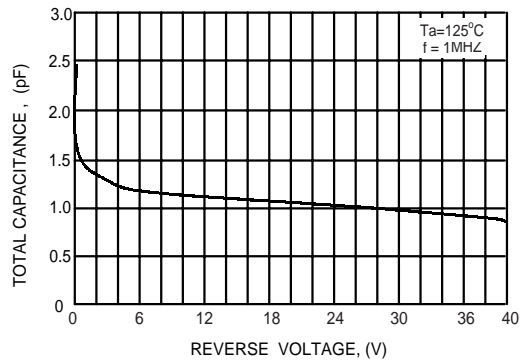


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

