



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT

SWITCHING DIODE ARRAY

VOLTAGE 80 Volts CURRENT 250 mAmpere

MMBD4448HAQWGP-A

APPLICATION

- * Fast high speed switching

FEATURE

- * Small surface mounting type. (SC-88/SOT-363)
- * High speed. ($T_{RR} = 4.0\text{nSec Max.}$)
- * Fast Switching Speed.
- * Ultra-Small Surface Mount Package.
- * For General Purpose Switching Applications.
- * High Conductance.
- * Lead free devices

CONSTRUCTION

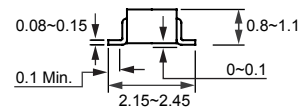
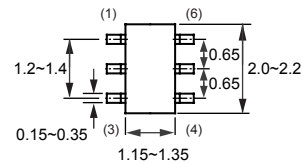
- * Silicon epitaxial planar

MARKING

- * DQ



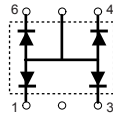
SC-88/SOT-363



Dimensions in millimeters

SC-88/SOT-363

CIRCUIT



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

RATINGS		SYMBOL	MMBD4448HAQWGP-A	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	I_{FSM}	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	$^\circ\text{C/W}$
Maximum Operating and Storage Temperature Range		T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

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

CHARACTERISTICS		SYMBOL	MMBD4448HAQWGP-A	UNITS
Maximum Instantaneous Forward Voltage	@ $I_F = 5.0\text{ mA}$	V_F	0.72	Volts
	@ $I_F = 100\text{ mA}$		1.0	
Maximum Average Reverse Current (Note 1)	$V_R = 20\text{V @ } T_J = 25^\circ\text{C}$	I_R	25nA	uAmps
	$V_R = 75\text{V @ } T_J = 150^\circ\text{C}$		50	
	$V_R = 25\text{V @ } T_J = 150^\circ\text{C}$		30	

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

2003-12

RATING CHARACTERISTIC CURVES (MMBD4448HAQWGP-A)

FIG. 1 - FORWARD CHARACTERISTICS

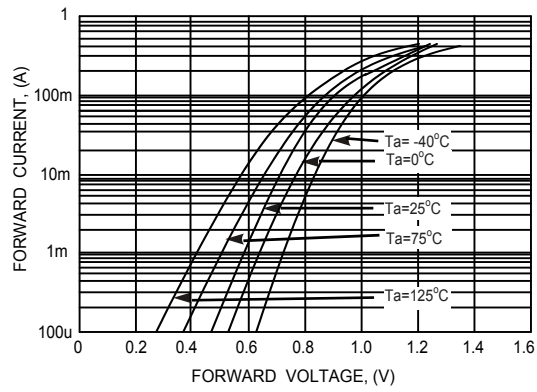


FIG. 2 - REVERSE CHARACTERISTICS

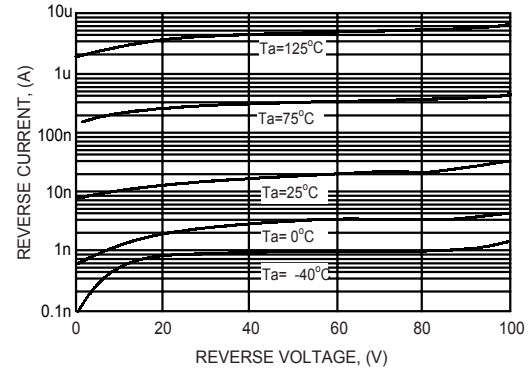


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

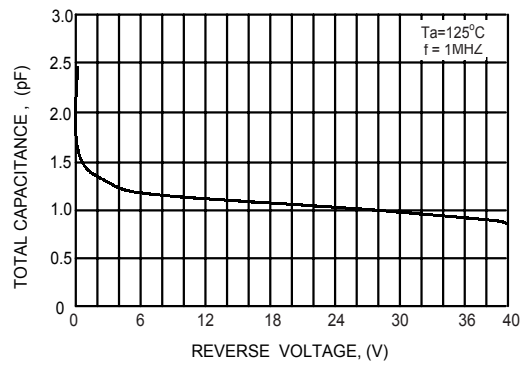


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

