



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT  
SWITCHING DIODE ARRAY**

VOLTAGE 80 Volts CURRENT 250 mAmpere

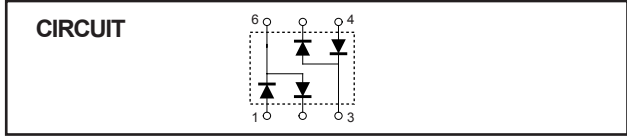
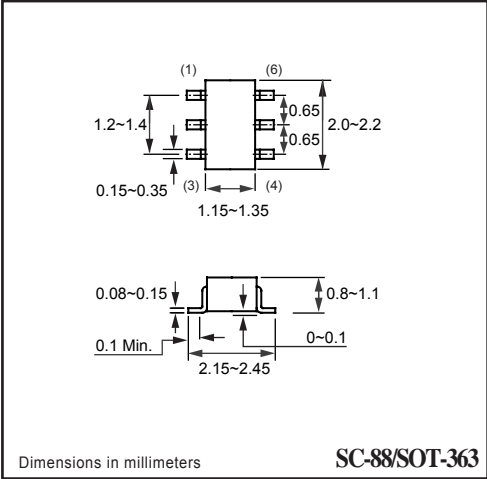
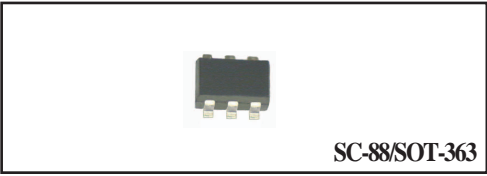
**MMBD4448HSDWGP-A**

**APPLICATION**  
\* Fast high speed switching

**FEATURE**  
\* Small surface mounting type. (SC-88/SOT-363)  
\* 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**  
\* DU



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

| RATINGS  | SYMBOL                             | MMBD4448HSDWGP-A | UNITS        |
|--|------------------------------------|------------------|--------------|
| Maximum Non-Repetitive Peak Reverse Voltage  | $V_{RM}$                           | 100              | Volts        |
| Maximum Repetitive Peak Reverse Voltage<br>Maximum Working Peak Reverse Voltage<br>Maximum DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_{DC}$ | 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                            | MMBD4448HSDWGP-A | UNITS |
|--|-----------------------------------|------------------|-------|
| Maximum Instantaneous Forward Voltage    | @ $I_F = 5.0$ mA                  | 0.72             | Volts |
|  | @ $I_F = 100$ mA                  | 1.0              |       |
| Maximum Average Reverse Current (Note 1) | $V_R = 20V$ @ $T_J = 25^\circ C$  | 25nA             | uAmps |
|  | $V_R = 75V$ @ $T_J = 150^\circ C$ | 50               |       |
|  | $V_R = 25V$ @ $T_J = 150^\circ C$ | 30               |       |

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

2003-12

## RATING CHARACTERISTIC CURVES ( MMBD4448HSDWGP-A )

FIG. 1 - FORWARD CHARACTERISTICS

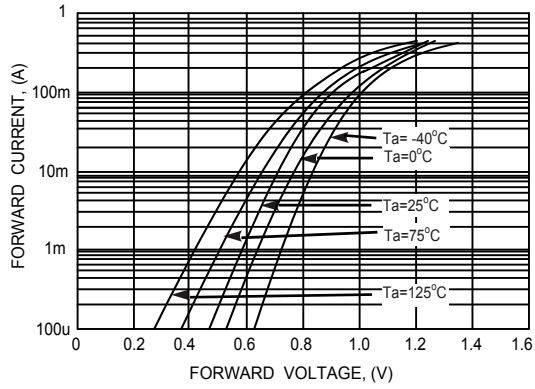


FIG. 2 - REVERSE CHARACTERISTICS

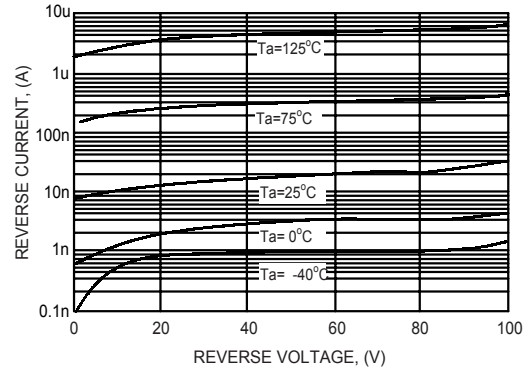


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

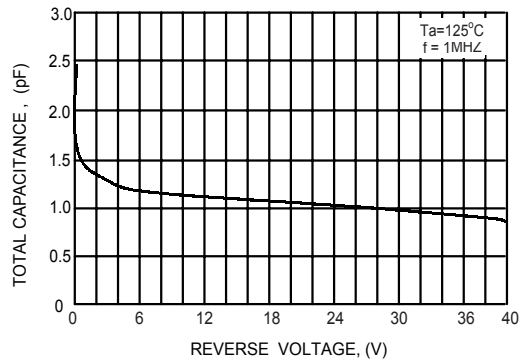


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

