



**CHENMKO ENTERPRISE CO.,LTD**

Halogens free devices

**SURFACE MOUNT**

**SCHOTTKY DIODE ARRAY**

**VOLTAGE 30 Volts CURRENT 0.2 Ampere**

**BAT54BDWGP-A**

**APPLICATION**

- \* Ultra high speed switching

**FEATURE**

- \* Small surface mounting type. (SC-88/SOT-363)
- \* High speed. ( $T_{RR}=2.5\text{nSec}$  Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 200mW.
- \* Peak forward current is 300mA.
- \* Schottky diode array ( Dual common anode).

**CONSTRUCTION**

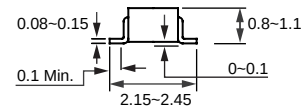
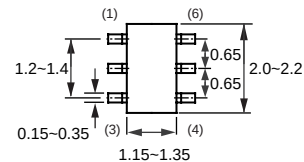
- \* Silicon epitaxial planar

**MARKING**

- \* BD1



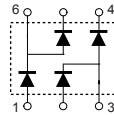
**SC-88/SOT-363**



Dimensions in millimeters

**SC-88/SOT-363**

**CIRCUIT**



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

| RATINGS                                                | SYMBOL    | BAT54BDWGP-A | UNITS            |
|--------------------------------------------------------|-----------|--------------|------------------|
| Maximum Recurrent Peak Reverse Voltage                 | $V_{RRM}$ | 30           | Volts            |
| Maximum RMS Voltage                                    | $V_{RMS}$ | 21           | Volts            |
| Maximum DC Blocking Voltage                            | $V_{DC}$  | 30           | Volts            |
| Maximum Average Forward Rectified Current              | $I_O$     | 0.2          | Amps             |
| Peak Forward Surge Current at 1Sec.                    | $I_{FSM}$ | 0.6          | Amps             |
| Typical Junction Capacitance between Terminal (Note 1) | $C_J$     | 10           | pF               |
| Maximum Reverse Recovery Time (Note 2)                 | $T_{RR}$  | 5.0          | nSec             |
| Maximum Operating Temperature Range                    | $T_J$     | +125         | $^\circ\text{C}$ |
| Storage Temperature Range                              | $T_{STG}$ | -65 to +125  | $^\circ\text{C}$ |

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

| CHARACTERISTICS                                       | SYMBOL | BAT54BDWGP-A | UNITS            |
|-------------------------------------------------------|--------|--------------|------------------|
| Maximum Instantaneous Forward Voltage                 | $V_F$  |              | mVolts           |
| @ $I_F = 0.1\text{mA}$                                | VF1    | 240          |                  |
| @ $I_F = 1.0\text{mA}$                                | VF2    | 320          |                  |
| @ $I_F = 10\text{mA}$                                 | VF3    | 400          |                  |
| @ $I_F = 30\text{mA}$                                 | VF4    | 500          |                  |
| @ $I_F = 100\text{mA}$                                | VF5    | 1000         |                  |
| Maximum Average Reverse Current at $V_R = 25\text{V}$ | $I_R$  | 2.0          | $\mu\text{Amps}$ |

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 1.0 volts.  
2. Measured at applied forward current of 10mA and reverse current of 10mA.  
3. ESD sensitive product handling required.

2003-10

RATING CHARACTERISTIC CURVES ( BAT54BDWGP-A )

FIG. 1 - FORWARD CHARACTERISTICS

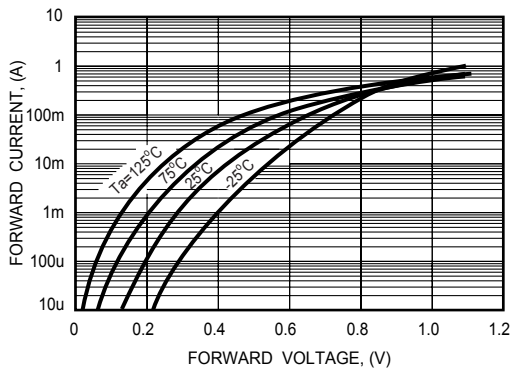


FIG. 2 - REVERSE CHARACTERISTICS

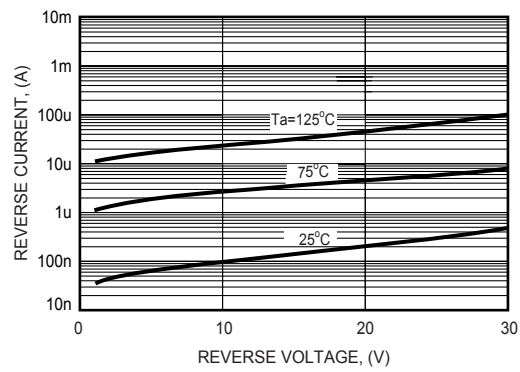


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

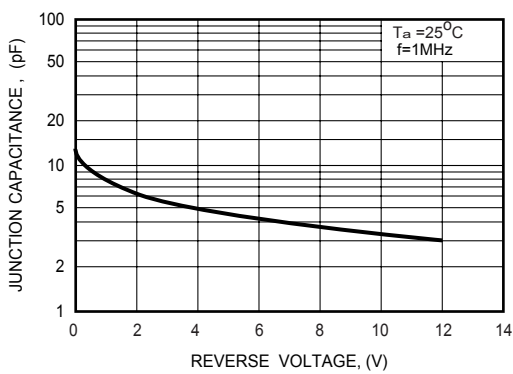


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

