

TOSHIBA SCHOTTKY BARRIER RECTIFIER SCHOTTKY BARRIER TYPE

CRS04

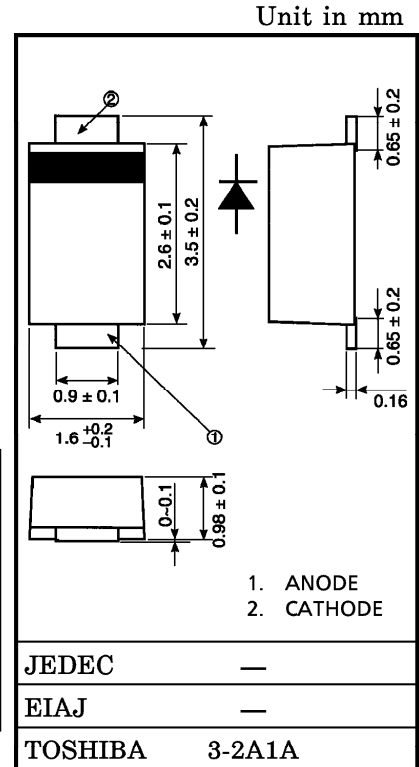
SWITCHING TYPE POWER SUPPLY APPLICATIONS

PORTABLE EQUIPMENT BATTERY APPLICATIONS

- Forward Voltage : $V_{FM} = 0.49 \text{ V (Max.)}$
- Average Forward Current : $I_F (AV) = 1.0 \text{ A}$
- Repetitive Peak Reverse Voltage : $V_{RRM} = 40 \text{ V}$
- Small Package : S-FLAT™ (Toshiba designation)

MAXIMUM RATINGS

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|------------|------------|------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 40 | V |
| Average Forward Current | $I_F (AV)$ | 1.0 | A |
| Peak One Cycle Surge Forward Current (Non-Repetitive) | I_{FSM} | 20 (50 Hz) | A |
| Junction Temperature | T_j | -40~150 | °C |
| Storage Temperature Range | T_{stg} | -40~150 | °C |



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|---------------------------------|----------------|--|------|-------|------|--------|
| Peak Forward Voltage | $V_{FM} (1)$ | $I_{FM} = 0.1 \text{ A}$ | — | 0.395 | — | V |
| | $V_{FM} (2)$ | $I_{FM} = 0.7 \text{ A}$ | — | 0.475 | 0.49 | V |
| | $V_{FM} (3)$ | $I_{FM} = 1.0 \text{ A}$ | — | 0.51 | — | V |
| Repetitive Peak Reverse Current | $I_{RRM} (1)$ | $V_{RRM} = 5 \text{ V}$ | — | 0.6 | — | μA |
| | $I_{RRM} (2)$ | $V_{RRM} = 40 \text{ V}$ | — | — | 100 | μA |
| Junction Capacitance | C_j | $V_R = 10 \text{ V}, f = 1.0 \text{ MHz}$ | — | 47 | — | pF |
| Thermal Resistance | $R_{th} (j-a)$ | On ceramic substrate (Soldering Land 2 mm × 2 mm) | — | — | 70 | °C / W |
| | | On glass-epoxy substrate (Soldering Land 6 mm × 6 mm) | — | — | 140 | °C / W |

HANDLING PRECAUTION

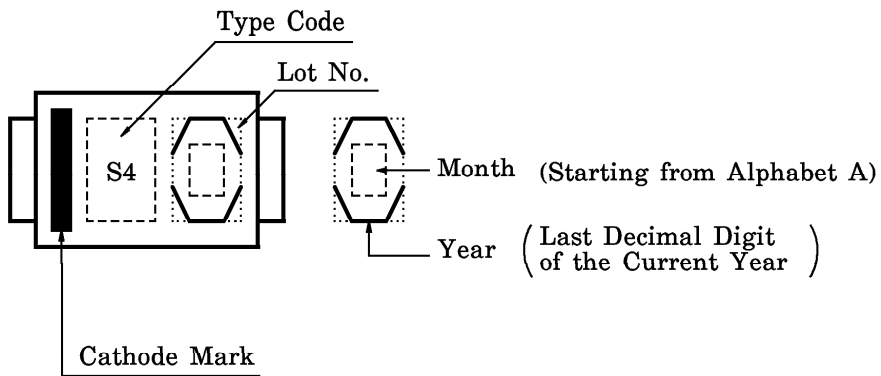
Schottky barrier diodes are having large-reverse-current-leakage characteristic compare to the other rectifier products. This current leakage and not proper operating temperature or voltage may cause thermal run.

Please take forward and reverse loss into consideration when you design.

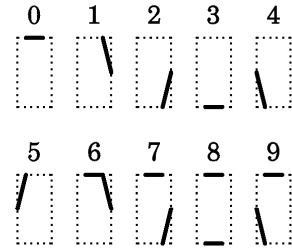
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MARKING

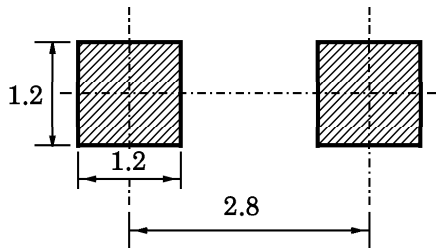


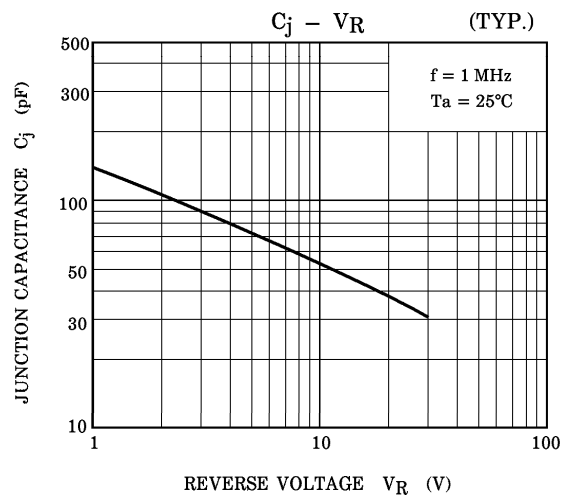
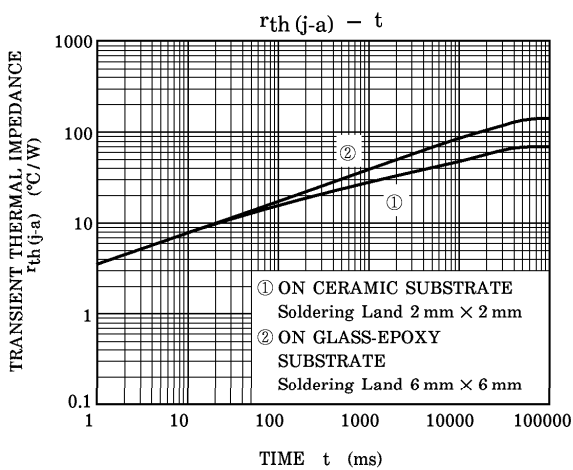
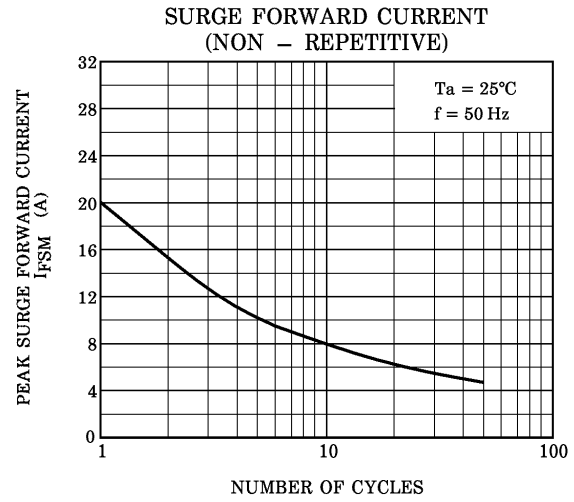
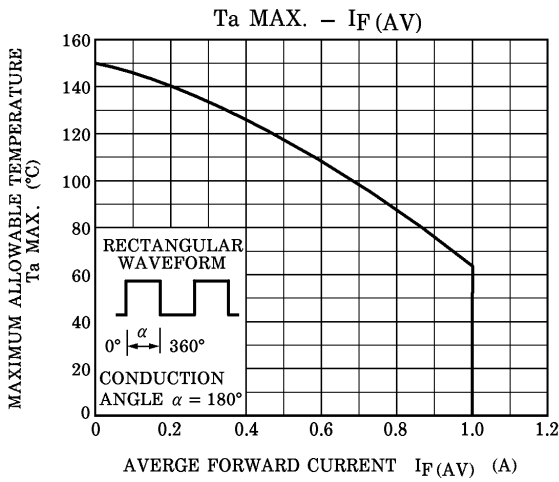
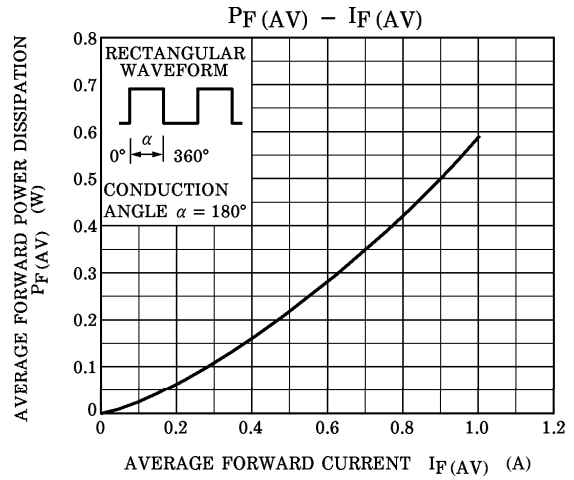
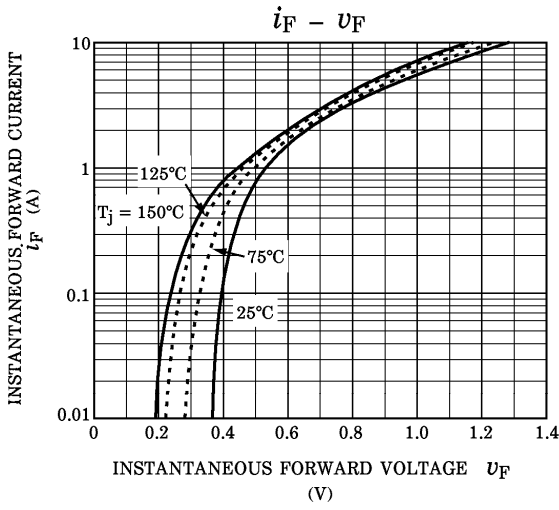
FOLLOWING INDICATES THE DATE OF MANUFACTURE

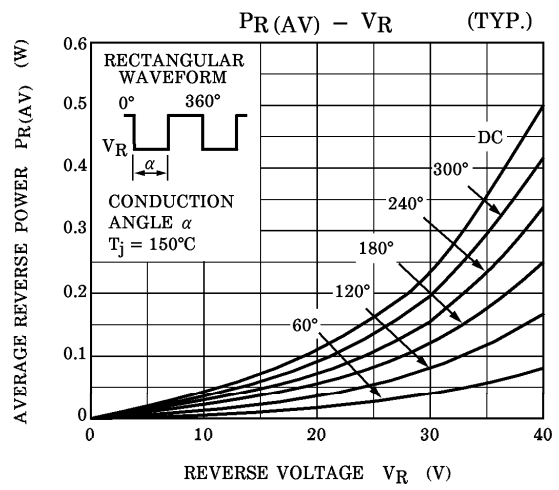
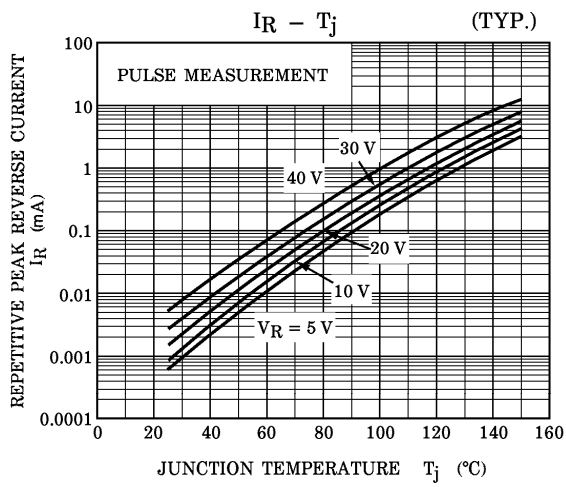


STANDARD SOLDERING PAD

Unit : mm







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