

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Low Forward Voltage Drop and Low Leakage Current
- Guard Ring Construction for Transient Protection
- Fast Switching
- Three Fully Isolated Schottky Diodes
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: 125°C
- Storage Temperature Range: -55°C to +125°C
- Thermal Resistance: 500°C/W Junction To Ambient

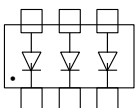
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SD103ATW | KLL | 40V | 28V | 40V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-----------|--|---|
| Forward Continuous Current(Note1) | I_{FM} | 350mA | |
| Average Rectified Output Current(Note2) | I_O | 175mA | |
| Peak Forward Surge Current | I_{FSM} | 1A | $t \leq 10ms$ |
| Power Dissipation | P_d | 200mW | |
| Reverse Breakdown Voltage | V_{BR} | 40V(Min) | $I_R = 100\mu A_{dc}(\text{note.2})$ |
| Reverse Voltage Leakage Current(Note3) | I_R | 2 μA (Max) 5 μA (Max) | $V_R = 10V$ $V_R = 30V$ |
| Forward Voltage(Note3) | V_F | 0.27V(Max) 0.32V(Max) 0.37V(Max) 0.50V(Max) | $I_F = 1mA$ $I_F = 5mA$ $I_F = 20mA$ $I_F = 100mA$ |
| Total Capacitance | C_T | 50pF(Max) | $V_R = 0V, f = 1.0MHz$ |
| Reverse Recovery Time | t_{rr} | 10ns(Max) | $I_F = I_R = 200mA,$ $I_{rr} = 0.1 * I_R, R_L = 100\Omega$ |

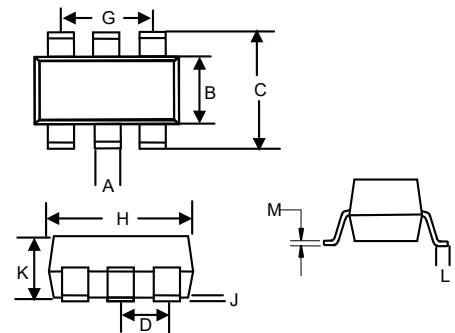
- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 2. This is the maximum rating of single Diode (D1 or D2 or D3). In the case of using two or three diodes, the maximum ratings per diode are 75% of the ratings for single diode operation.
 3. Short duration test pulse used to minimize self-heating effect.

Internal Structure:



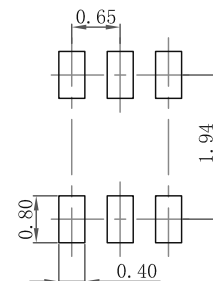
**200 mW
Schottky Barrier
Diode**

SOT-363



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|--------------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.006 | 0.014 | 0.15 | 0.35 | |
| B | 0.045 | 0.053 | 1.15 | 1.35 | |
| C | 0.079 | 0.096 | 2.00 | 2.45 | |
| D | | 0.026 | 0.65 Nominal | | |
| G | 0.047 | 0.055 | 1.20 | 1.40 | |
| H | 0.071 | 0.087 | 1.80 | 2.20 | |
| J | | 0.004 | | 0.10 | |
| K | 0.031 | 0.043 | 0.80 | 1.10 | |
| L | 0.010 | 0.018 | 0.26 | 0.46 | |
| M | 0.003 | 0.006 | 0.08 | 0.15 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Characteristics

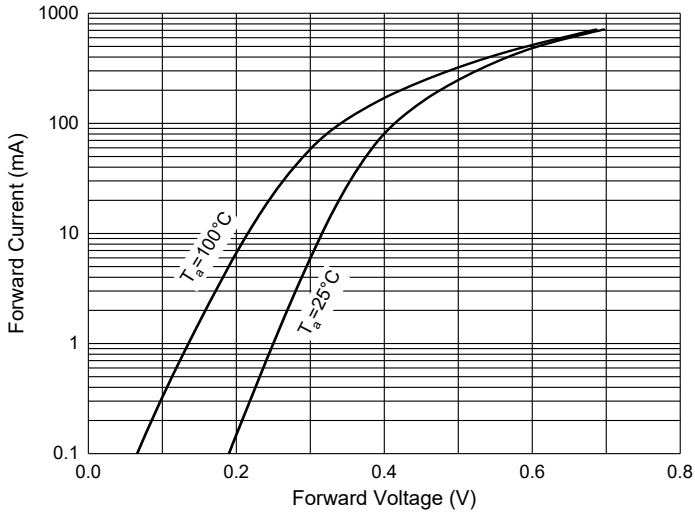


Fig. 2 - Reverse Characteristics

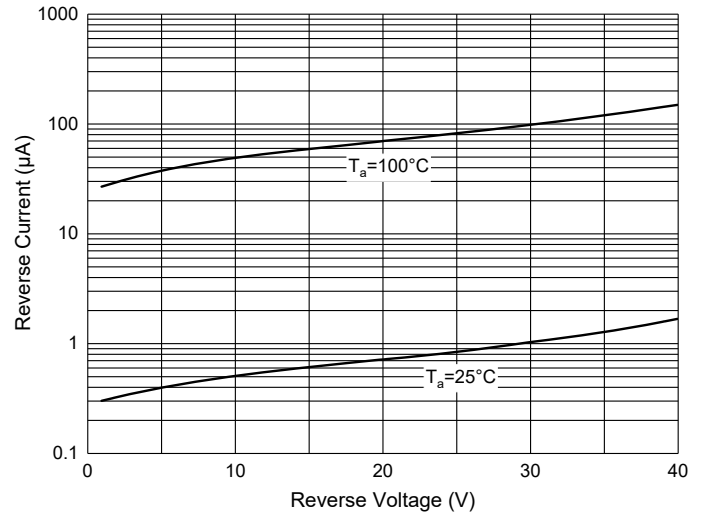


Fig. 3 - Capacitance Characteristics

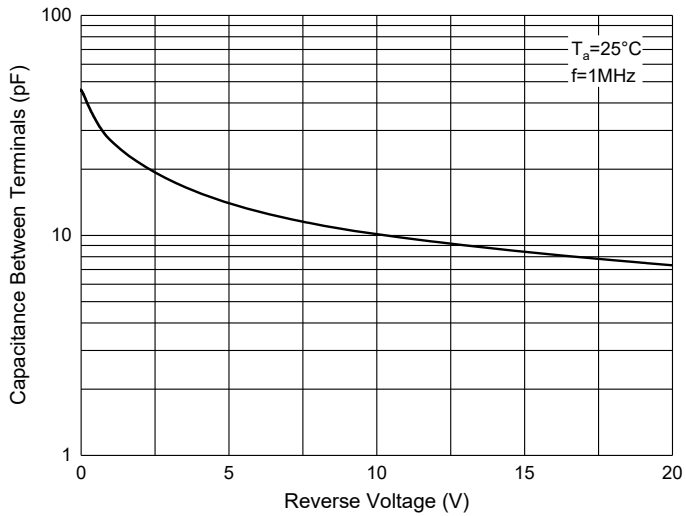
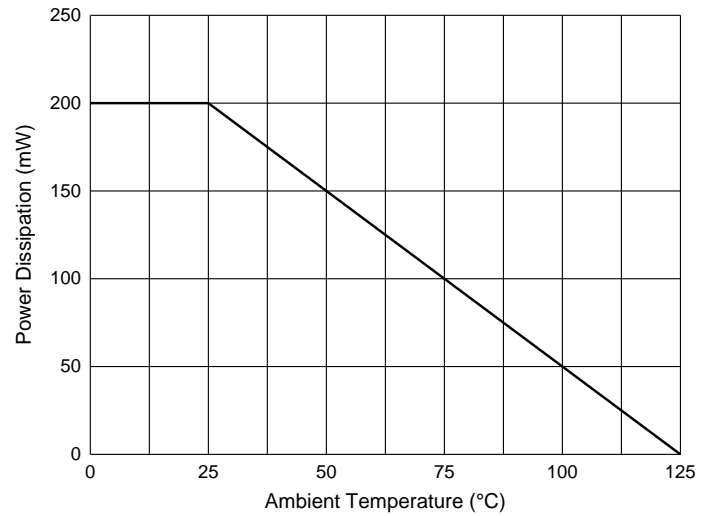


Fig. 4 - Power Derating Curve



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

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