

## 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 Available Upon Request By Adding Suffix "-HF"
- 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                         |

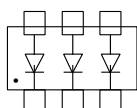
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                         |           |                                                      |                                                                |
|-----------------------------------------|-----------|------------------------------------------------------|----------------------------------------------------------------|
| Forward Continuous Current(Note1)       | $I_{FM}$  | 350mA                                                |                                                                |
| Average Rectified Output Current(Note1) | $I_O$     | 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(Note2)  | $I_R$     | 2 $\mu A$ (Max)<br>5 $\mu A$ (Max)                   | $V_R = 10V$<br>$V_R = 30V$                                     |
| Forward Voltage(Note2)                  | $V_F$     | 0.27V(Max)<br>0.32V(Max)<br>0.37V(Max)<br>0.50V(Max) | $I_F = 1mA$<br>$I_F = 5mA$<br>$I_F = 20mA$<br>$I_F = 100mA$    |
| Total Capacitance                       | $C_T$     | 50pF(Max)                                            | $V_R = 0V, f = 1.0MHz$                                         |
| Reverse Recovery Time                   | $t_{rr}$  | 10ns(Max)                                            | $I_F = I_R = 200mA$ ,<br>$I_{rr} = 0.1 * I_R, R_L = 100\Omega$ |

Notes: 1. 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.

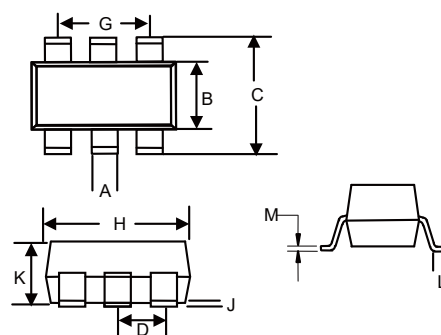
2. Short duration test pulse used to minimize self-heating effect.

## Internal Structure:



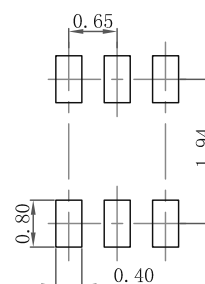
# 200 mW Schottky Barrier Diode

## SOT-363



| DIM | INCHES |       | MM           |      | NOTE |
|-----|--------|-------|--------------|------|------|
|     | 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

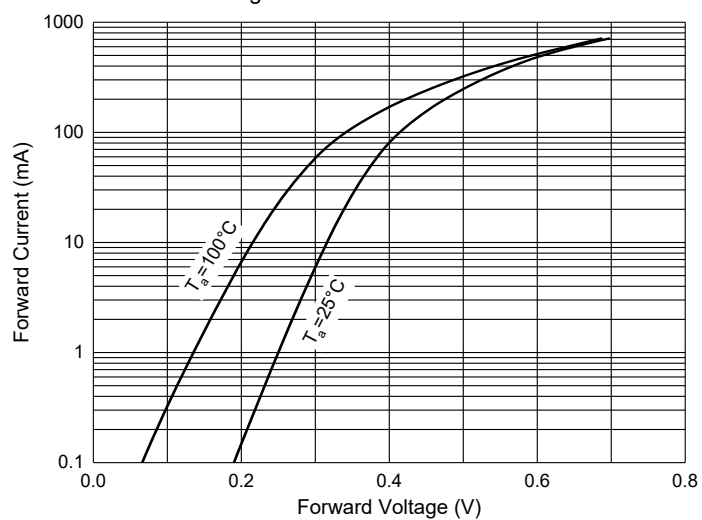


Fig. 2 - Reverse Characteristics

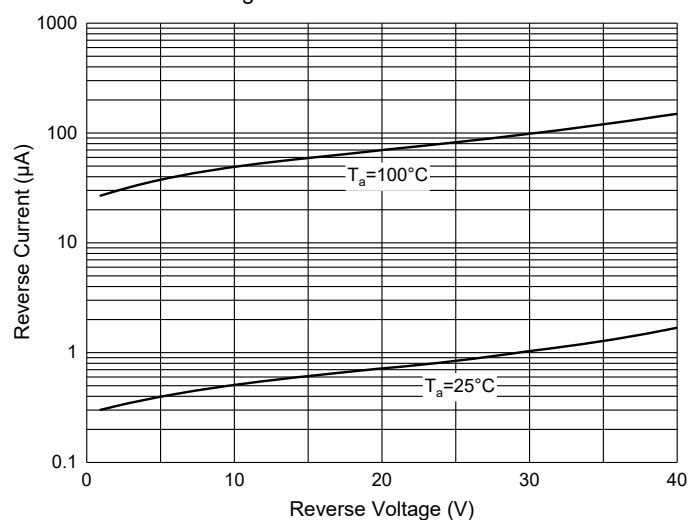


Fig. 3 - Capacitance Characteristics

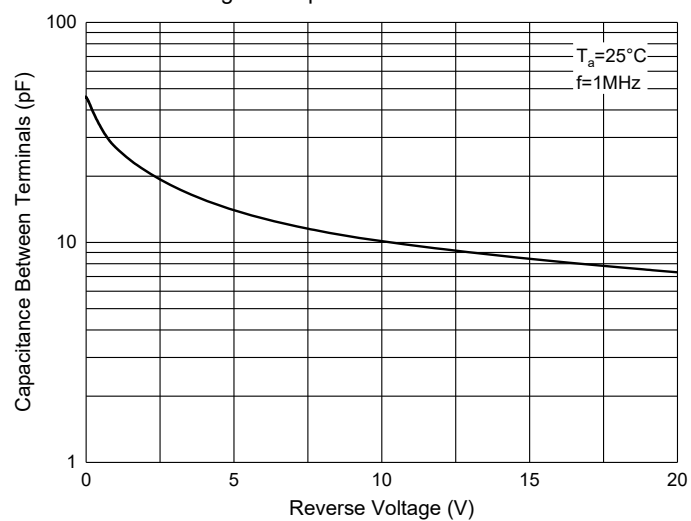
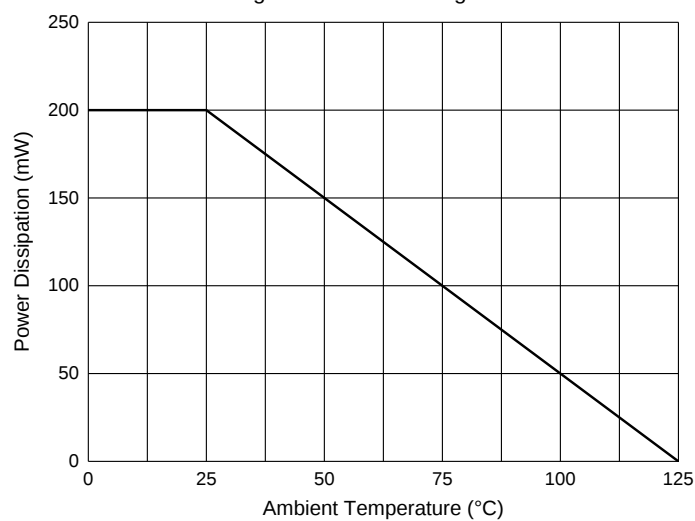


Fig. 4 - Power Derating Curve



## Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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