

**Features**

- High Speed
- High Reliability
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

| MCC Part Number | Device Marking | Peak Repetitive Reverse Voltage $V_{RM}$ |
|-----------------|----------------|--|
| DAN222          | N              | 80V                                      |
| DAP222          | P              | 80V                                      |

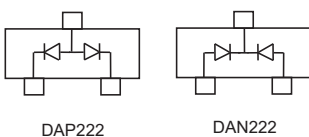
|                              |           |       |
|------------------------------|-----------|-------|
| Continuous Forward Current   | $I_F$     | 100mA |
| Peak Forward Surge Current * | $I_{FSM}$ | 300mA |

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

|   |          |       |                       |
|---|----------|-------|-----------------------|
| Maximum Forward Voltage                                 | $V_F$    | 1.2V  | $I_F=100.0mA$         |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$    | 0.1µA | $V_R=70V$             |
| Maximum Junction Capacitance                            | $C_D$    | 3.5pF | $V_R=1.0V, f=1.0MHz$  |
| Maximum Reverse Recovery Time                           | $t_{rr}$ | 4.0ns | $V_R=1.0V, I_F=5.0mA$ |

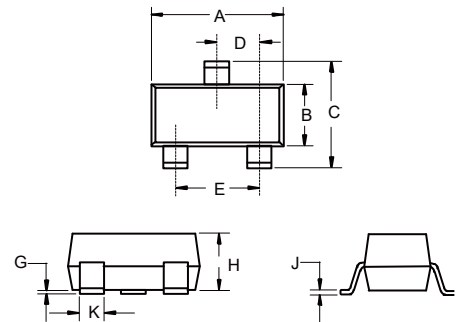
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure**



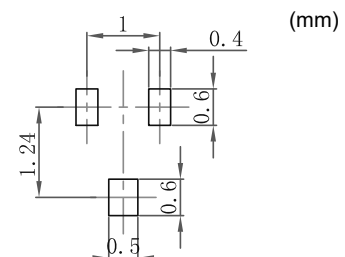
**100 mA  
Switching Diode  
80 Volts**

**SOT-523**



| DIM | DIMENSIONS    |       |              |      | NOTE |
|-----|---------------|-------|--------------|------|------|
|     | INCHES        |       | MM           |      |      |
|     | MIN           | MAX   | MIN          | MAX  |      |
| A   | 0.059         | 0.067 | 1.50         | 1.70 |      |
| B   | 0.030         | 0.033 | 0.75         | 0.85 |      |
| C   | 0.057         | 0.069 | 1.45         | 1.75 |      |
| D   | 0.020 Nominal |       | 0.50 Nominal |      |      |
| E   | 0.035         | 0.043 | 0.90         | 1.10 |      |
| G   | 0.000         | 0.004 | 0.00         | 0.10 |      |
| H   | 0.024         | 0.031 | 0.60         | 0.80 |      |
| J   | 0.004         | 0.008 | 0.10         | 0.20 |      |
| K   | 0.006         | 0.014 | 0.15         | 0.35 |      |

**Suggested Solder Pad Layout**



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

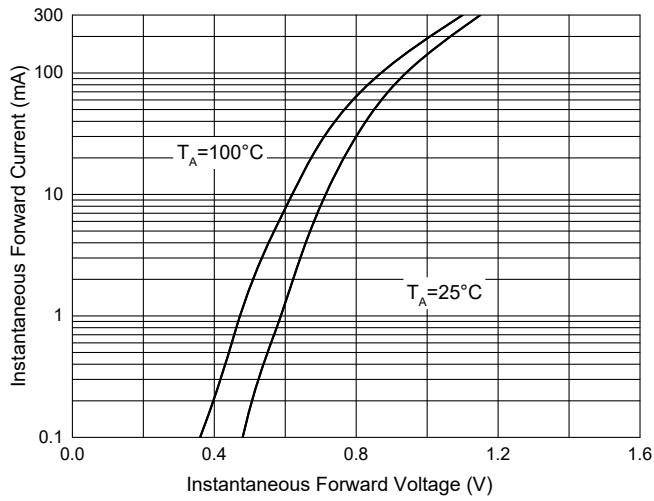


Fig. 2 - Typical Reverse Leakage Characteristics

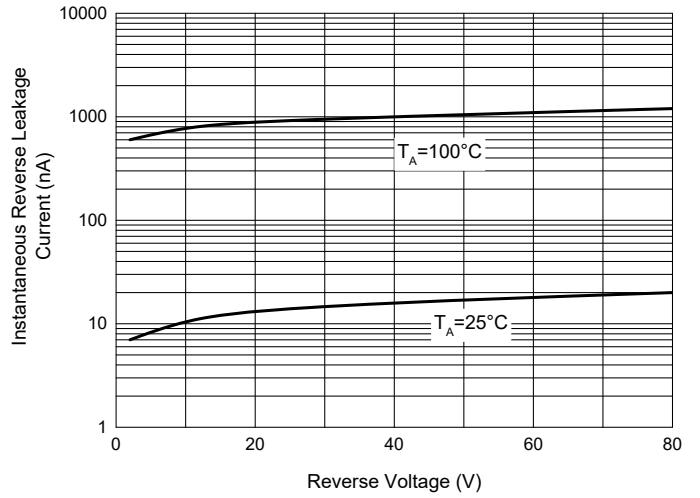
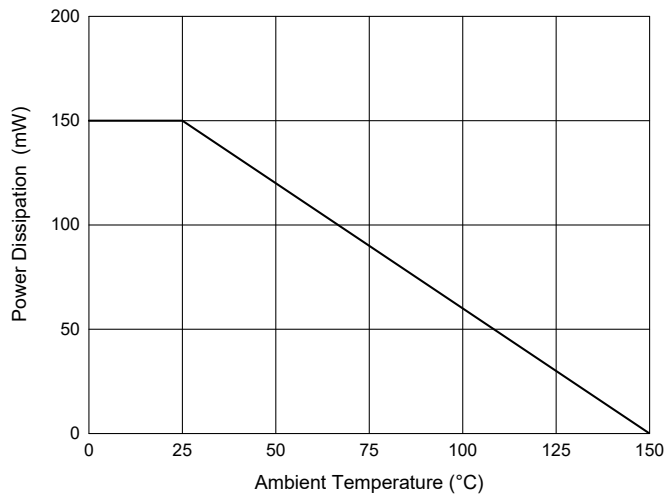


Fig. 3 - Power Derating Curve



## Ordering Information

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

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