

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Ultra-Small Surface Mount Package
- High Reliability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 1)
- Low Forward Voltage
- Low Leakage Current

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +125°C
- Thermal Resistance(Note2): 333C/W Junction to Ambient

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| CSP522S-30DP | 30V | 21V | 30V |

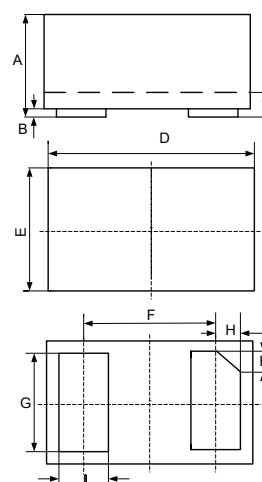
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---------------------------------------|-------------|----------------|--|
| Forward Continuous Current | $I_{F(AV)}$ | 100mA | |
| Peak Forward Surge Current | I_{FSM} | 500mA | 8.3ms, Half Sine |
| Power Dissipation | P_d | 300mW | |
| Maximum Instantaneous Forward Voltage | V_F | 0.45V 0.65V | $I_F=10.0mA$ $I_F=100mA$ |
| Max Reverse Current | I_R | 0.3uA 5.0uA | $V_R=10V$ $V_R=30V$ |
| Min Reverse Breakdown Voltage | $V_{(BR)}$ | 30V | $I_R=50\mu A$ |
| Typ Junction Capacitance | C_J | 15pF | $V_R=0V, f=1MHz$ |
| Typ Reverse Recovery Time | t_{rr} | 5ns | $I_F=I_R=10mA, I_{rr}=0.1I_R, R_L=100\Omega$ |

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
Note: 2. Part mounted on FR-4 board with recommended pad layout.

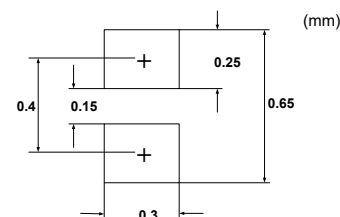
100mA Schottky Barrier Rectifier 30 Volts

0201-A



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.009 | 0.013 | 0.23 | 0.33 | |
| B | 0.000 | 0.002 | 0.00 | 0.05 | |
| C | 0.005 | 0.007 | 0.12 | 0.18 | |
| D | 0.022 | 0.026 | 0.55 | 0.65 | |
| E | 0.010 | 0.014 | 0.25 | 0.35 | |
| F | 0.014 | | 0.355 | | TYP. |
| G | 0.008 | 0.011 | 0.22 | 0.28 | |
| H | 0.003 | | 0.079 | | TYP. |
| L | 0.006 | 0.009 | 0.16 | 0.22 | |

SUGGESTED SOLDER PAD LAYOUT



Internal Structure and Marking Code



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

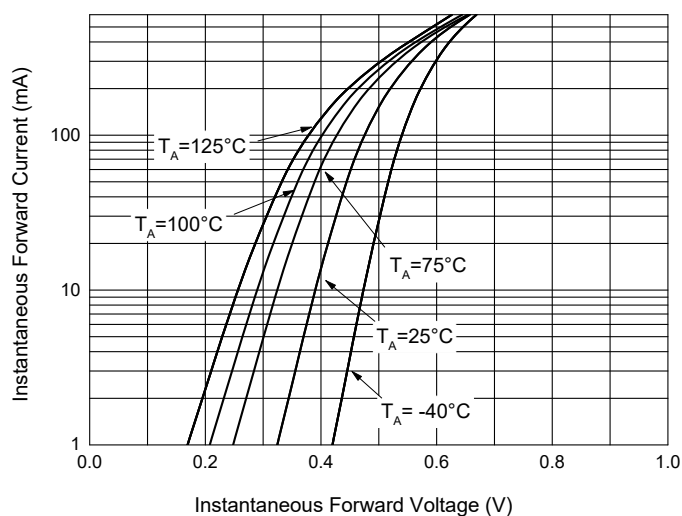


Fig. 2 - Typical Reverse Leakage Characteristics

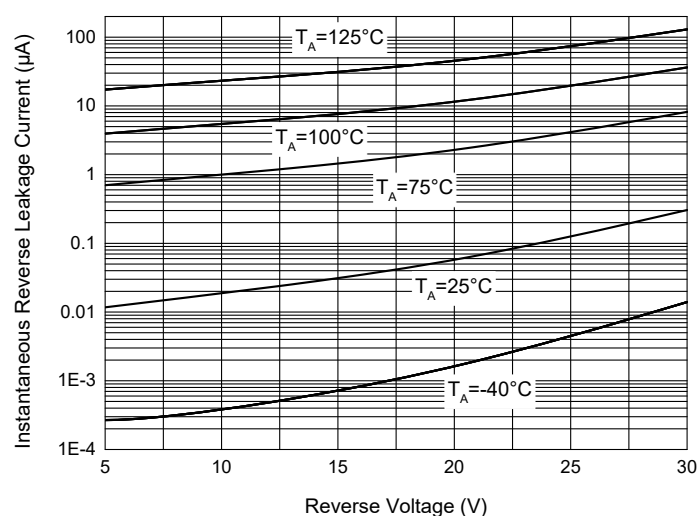


Fig. 3 - Capacitance Characteristics

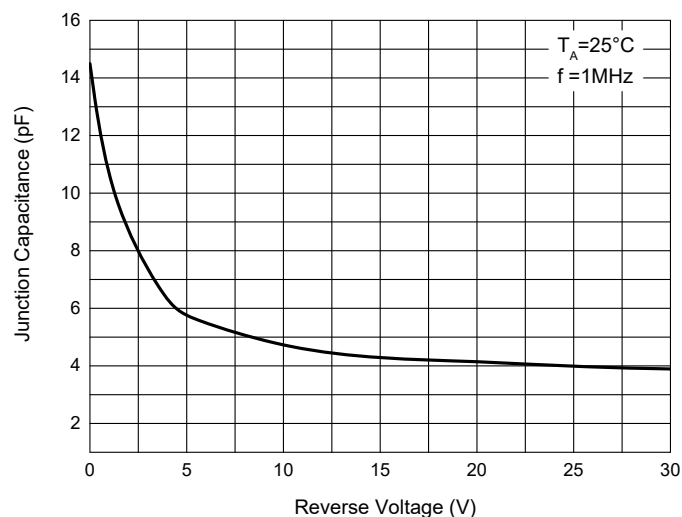
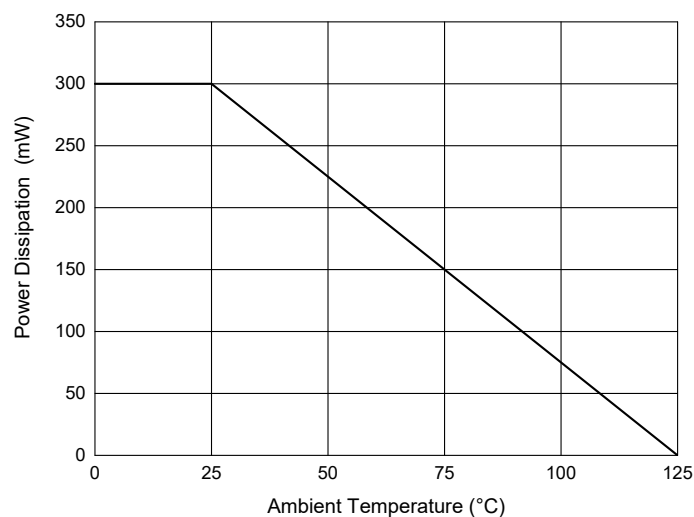


Fig. 4 - Power Derating Curve



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel;10Kpcs/Reel |

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