

B0530WS

0.5 Amp Schottky Rectifier 30 Volts

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Extremely Low Thermal Resistance
- For Surface Mount Application and High Current Capability
- Higher Temp Soldering: 260°C for 10 Seconds At Terminals
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

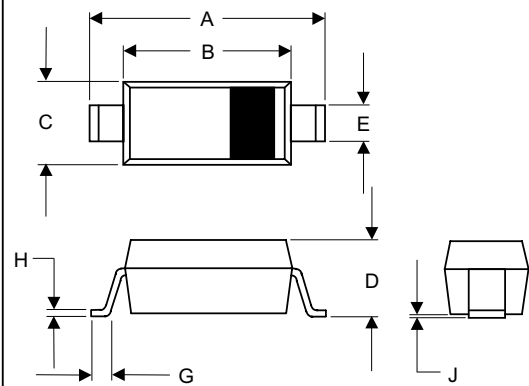
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 5°C/W Junction to Lead

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| B0530WS | 3 / SE | 30V | 21V | 30V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---------------------------------------------------------|-------------|-------|-----------------------------------------|
| Average Forward Current | $I_{F(AV)}$ | 0.5A | $T_J=90^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 5A | 8.3ms half sine |
| Maximum Instantaneous Forward Voltage | V_F | 0.55V | $I_{FM}=0.5A$ $T_J=25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.3mA | $T_A=25^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 30pF | Measured at 1.0MHz, $V_R=4.0V$ |
| Power Dissipation | P_D | 250mW | |

SOD323



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .090 | .113 | 2.30 | 2.88 | |
| B | .063 | .071 | 1.60 | 1.80 | |
| C | .045 | .053 | 1.15 | 1.35 | |
| D | .031 | .049 | 0.80 | 1.24 | |
| E | .010 | .016 | 0.25 | 0.40 | |
| G | .004 | .018 | 0.10 | 0.45 | |
| H | .004 | .010 | 0.10 | 0.25 | |
| J | ----- | .006 | ----- | 0.15 | |

SUGGESTED SOLDER PAD LAYOUT

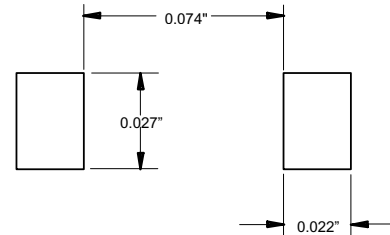


Figure 1
Typical Forward Characteristics

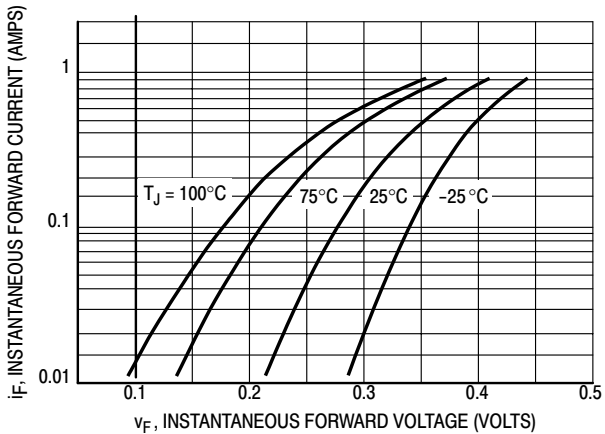


Figure 2
Typical Forward Characteristics

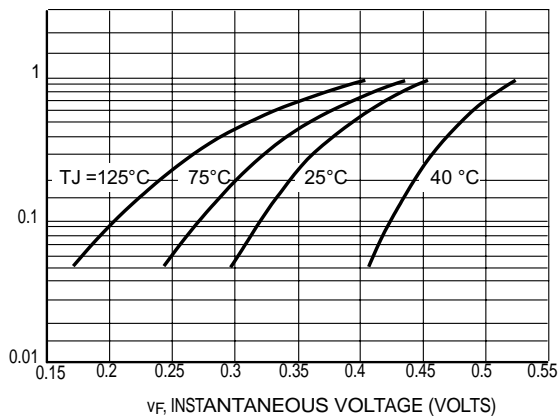


Figure 3
Typical Forward Characteristics

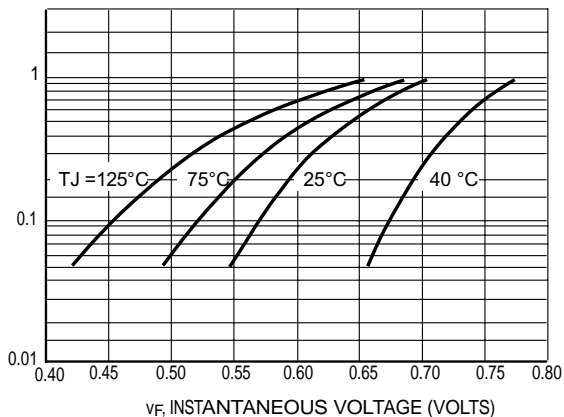
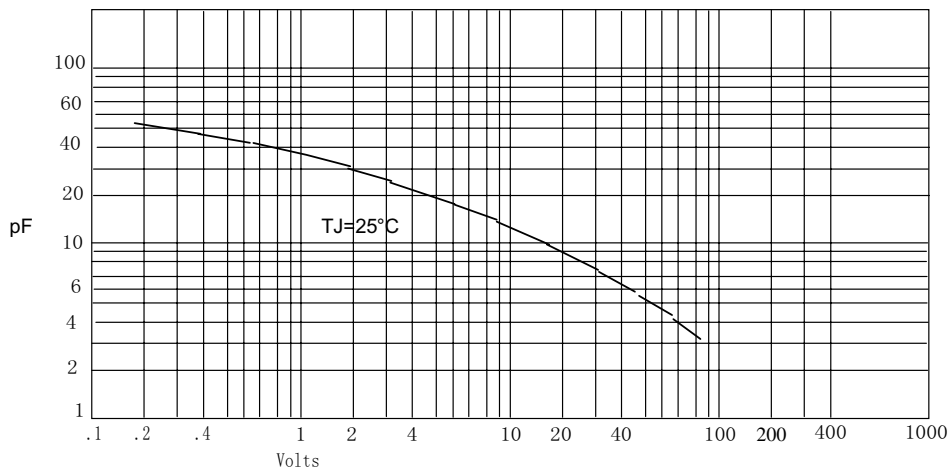
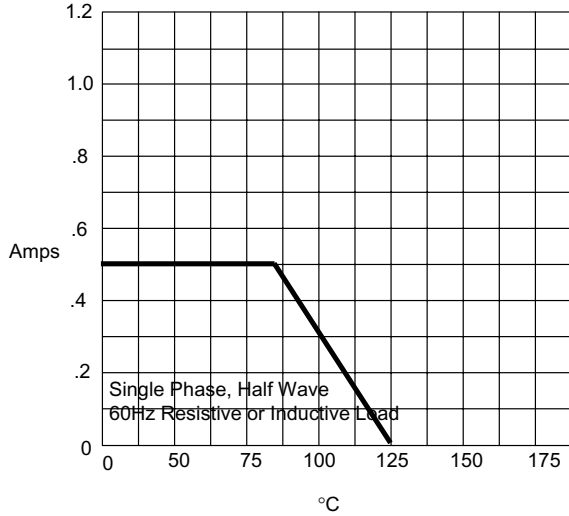


Figure 4
Junction Capacitance



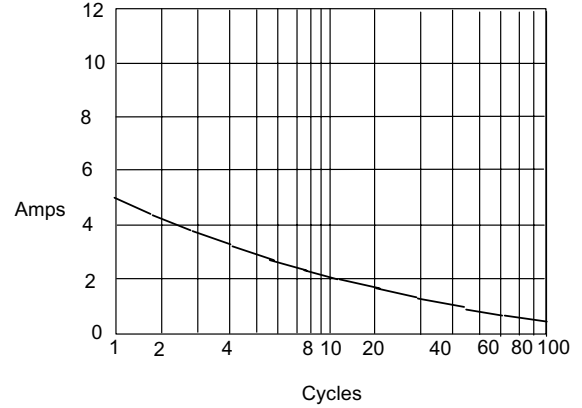
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Figure 5
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus* Ambient Temperature - °C

Figure 6
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus* Number Of Cycles At 60Hz - Cycles



Micro Commercial Components

Ordering Information :

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

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