

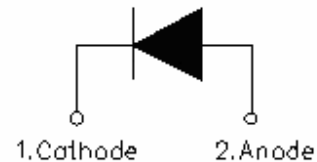
MUR1520 ULTRAFAST PLASTIC RECTIFIER

Applications:

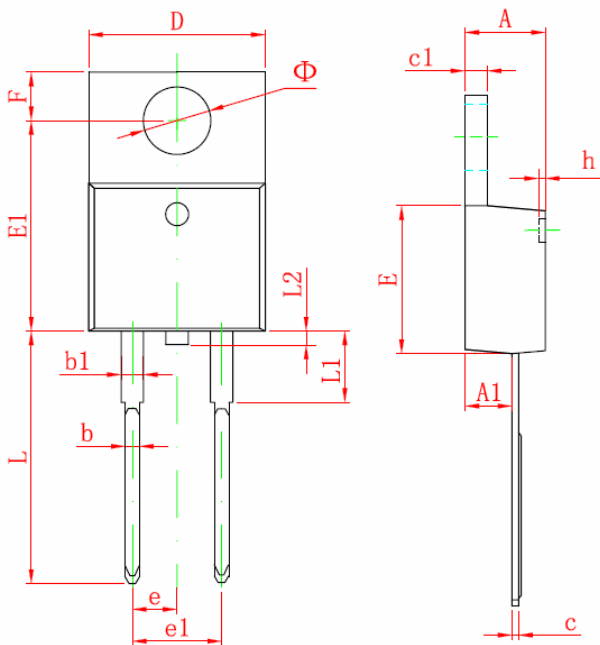
- Switching Power Supply
- Power Switching Circuits
- General Purpose

Features:

- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



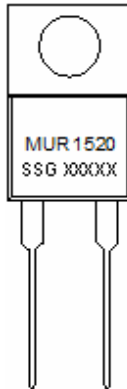
Mechanical Dimensions: In mm



| Symbol | Dimensions In Millimeters | |
|--------|---------------------------|--------|
| | Min | Max |
| A | 4.470 | 4.670 |
| A1 | 2.520 | 2.820 |
| b | 0.710 | 0.910 |
| b1 | 1.170 | 1.370 |
| c | 0.310 | 0.530 |
| c1 | 1.170 | 1.370 |
| D | 10.010 | 10.310 |
| E | 8.500 | 8.900 |
| E1 | 12.060 | 12.460 |
| e | 2.540 TYP | |
| e1 | 4.980 | 5.180 |
| F | 2.590 | 2.890 |
| h | 0.000 | 0.300 |
| L | 13.400 | 13.800 |
| L1 | 3.560 | 3.960 |
| L2 | | 1.000 |
| Φ | 3.735 | 3.935 |

TO-220AC

Marking Diagram:



Where XXXXX is YYWWL

MUR = Device Type
 15 = Forward Current (15A)
 20 = Reverse Voltage (200V)
 SSG = SSG
 YY = Year
 WW = Week
 L = Lot Number

Cautions: Molding resin
 Epoxy resin UL:94V-0

Ordering Information:

| Device | Package | Shipping |
|---------|-----------------------|--------------|
| MUR1520 | TO-220AC (Pb-Free) | 50pcs / tube |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

| Characteristics | Symbol | Condition | Max. | Units |
|---|-------------|--|------|-------|
| Peak Inverse Voltage | V_{RWM} | - | 200 | V |
| Average Forward Current | $I_{F(AV)}$ | 50% duty cycle @Tc=100°C, rectangular wave form | 15 | A |
| Peak One Cycle Non-Repetitive Surge Current (Per leg) | I_{FSM} | 8.3ms, Half Sine pulse | 110 | A |

Electrical Characteristics:

| Characteristics | Symbol | Condition | Max. | Units |
|-----------------------|----------|---|------|---------------|
| Forward Voltage Drop* | V_{F1} | @ 15A, Pulse, $T_J = 25^\circ\text{C}$ | 1.05 | V |
| | V_{F2} | @ 15A, Pulse, $T_J = 150^\circ\text{C}$ | 0.85 | V |
| Reverse Current* | I_{R1} | @ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$ | 10 | μA |
| | I_{R2} | @ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$ | 500 | μA |
| Reverse Recovery Time | t_{rr} | $I_F = 1\text{A}$; $-di/dt = 50\text{A}/\mu\text{s}$; $V_R = 30\text{V}$; $T_{VJ} = 25^\circ\text{C}$ | 35 | ns |

* Pulse width < 300 μs , duty cycle < 2%

Thermal-Mechanical Specifications:

| Characteristics | Symbol | Condition | Specification | Units |
|---|-----------------|--------------|---------------|---------------------------|
| Junction Temperature | T_J | - | -55 to +150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | - | -55 to +150 | $^\circ\text{C}$ |
| Maximum Thermal Resistance Junction to Case | $R_{\theta JC}$ | DC operation | 1.5 | $^\circ\text{C}/\text{W}$ |
| Approximate Weight | wt | - | 1.6 | g |
| Case Style | TO-220AC | | | |

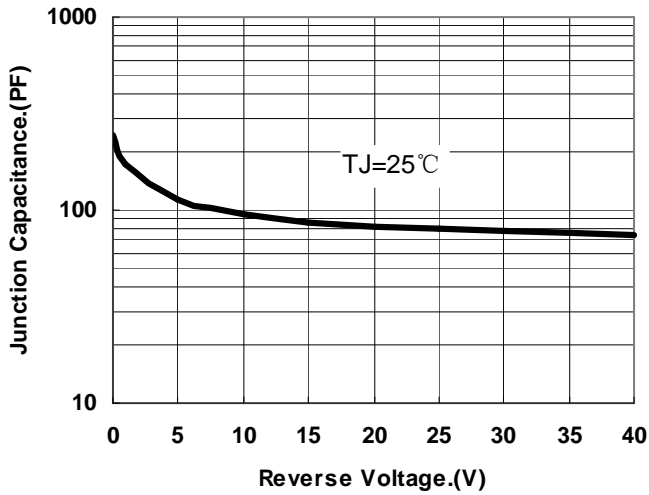


Fig.1-Typical Junction Capacitance

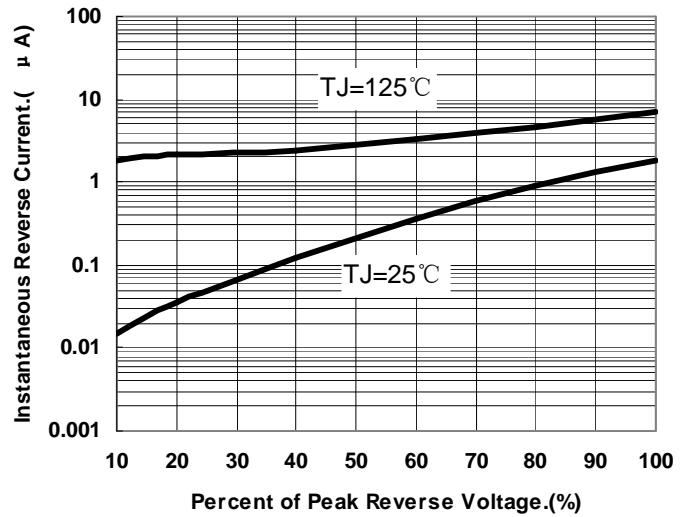


Fig.2-Typical Reverse Characteristics

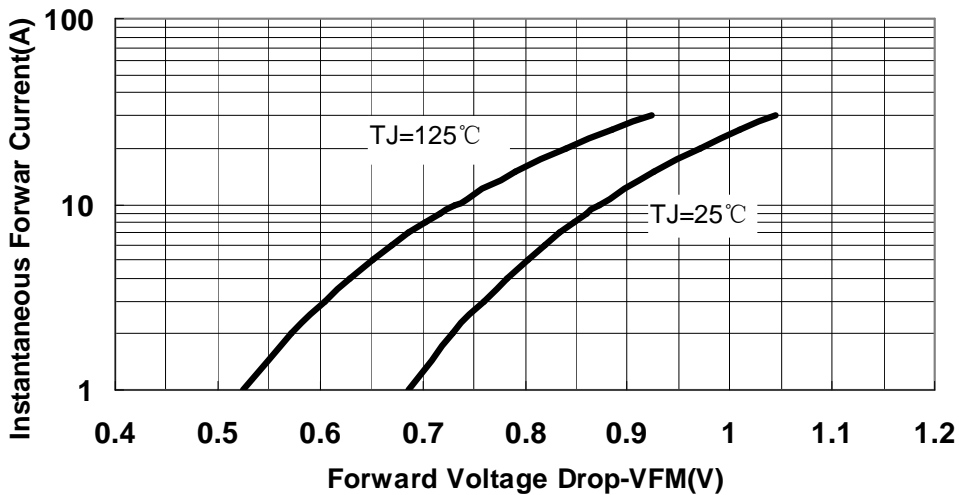


Fig.3-Typical Forward Voltage Drop Characteristics

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