

MUR3060/CT/FCT/DC/PT

ULTRAFAST RECOVERY RECTIFIERS

VOLTAGE 600 Volt **CURRENT** 30 Ampere

FEATURES

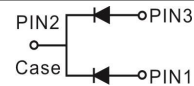
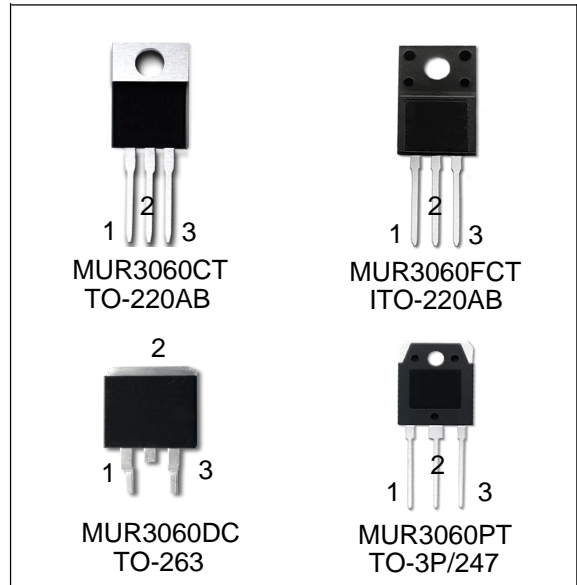
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

Device Weight : 0.07 ounces (1.96grams) - TO -220AB
 0.06 ounces (1.74grams) - ITO -220AB
 0.04 ounces (1.16 grams) - TO -263
 0.22 ounces (6.36grams) - TO -247/TO-3P

- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.

Mounting Torque : Recommended 4~5 kg·cm.



MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|-----------------|--------------|----------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 600 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 15 30 | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 300 | A |
| Typical junction capacitance ($V_R=4\text{V}$, $f=1\text{MHz}$) | C_J | 195 | pF |
| Typical thermal resistance per diode (Note 1) | $R_{\theta JC}$ | 2.0 | $^{\circ}\text{C/W}$ |
| Maximum Reverse Recovery Time (Note 2) | T_{rr} | 35 | ns |
| Operating junction temperature range | T_J | -40 to + 150 | $^{\circ}\text{C}$ |
| Storage temperature range | T_{STG} | -40 to + 150 | $^{\circ}\text{C}$ |

Note : 1. Mounted on infinite heatsink.

ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|---|----------|--|------|------|------|---------------|
| Breakdown voltage per diode | V_{BR} | $I_R=100\mu\text{A}$ | 600 | - | - | V |
| Instantaneous forward voltage per diode | V_F | $I_F=15\text{A}$ $T_J=25^{\circ}\text{C}$ | - | - | 1.45 | V |
| Reverse current per diode | I_R | $V_R=600\text{V}$ $T_J=25^{\circ}\text{C}$ | - | - | 1 | μA |

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RATING AND CHARACTERISTIC CURVES

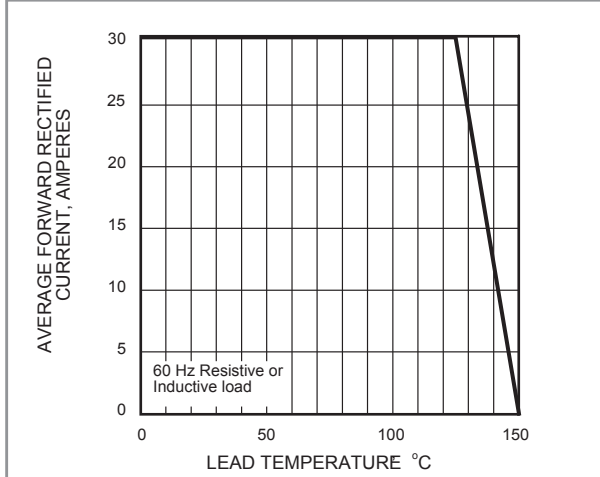


FIG. 1 - FORWARD CURRENT DERATING CURVE

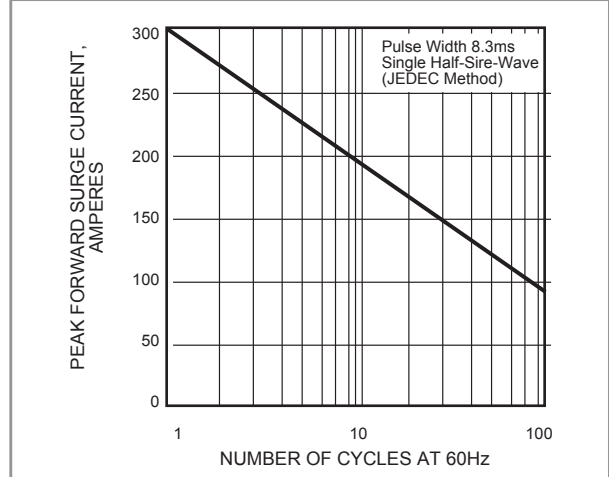


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

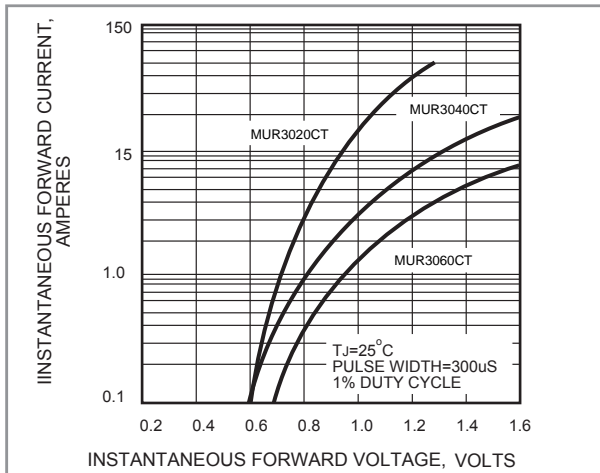


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

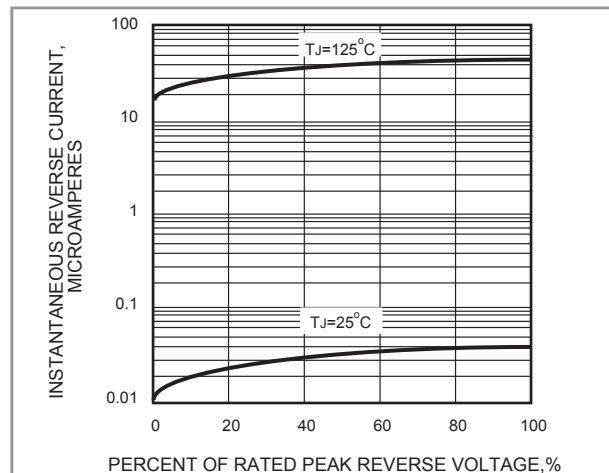


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

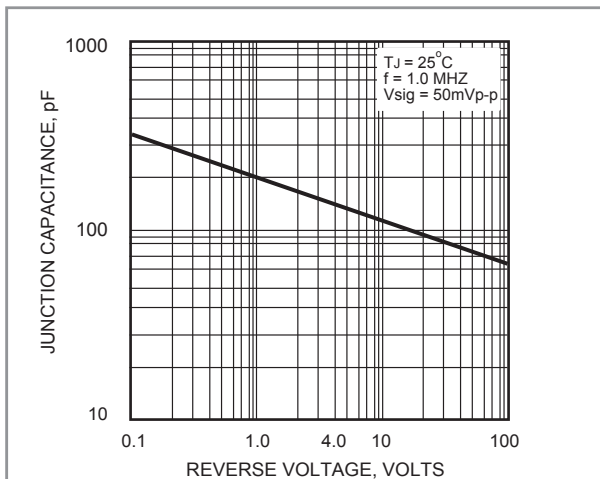
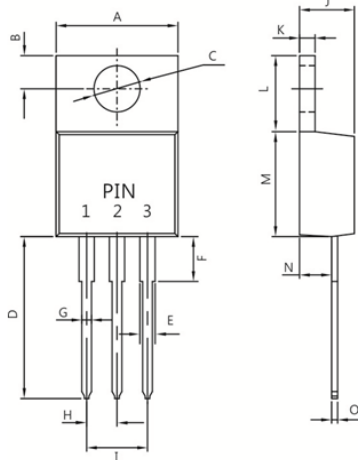


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

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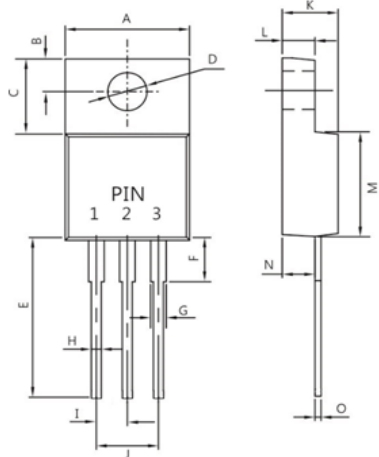
TO-220AB



| Dim. | Min. | Max. |
|------|-------|-------|
| A | ---- | 10.50 |
| B | 2.50 | 3.50 |
| C | 3.50 | 4.10 |
| D | 13.10 | 13.90 |
| E | 1.15 | 1.49 |
| F | ---- | 6.35 |
| G | 0.65 | 0.95 |
| H | 2.29 | 2.79 |
| I | 4.80 | 5.30 |
| J | 4.40 | 4.80 |
| K | 1.14 | 1.40 |
| L | 5.84 | 6.86 |
| M | 8.50 | 9.60 |
| N | 2.03 | 2.92 |
| O | 0.30 | 0.64 |

All Dimensions in millimeter

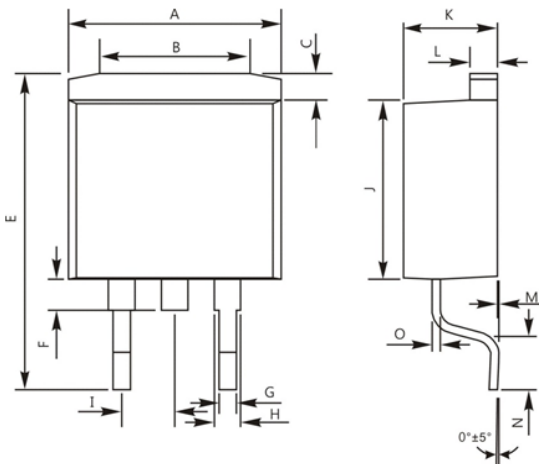
ITO-220AB



| Dim. | Min. | Max. |
|------|-------|-------|
| A | ---- | 10.50 |
| B | 2.60 | 3.00 |
| C | 6.70 | 7.10 |
| D | 2.90 | 3.50 |
| E | 13.10 | 13.90 |
| F | ---- | 4.00 |
| G | 1.11 | 1.45 |
| H | 0.40 | 0.80 |
| I | 2.40 | 2.80 |
| J | 5.00 | 5.40 |
| K | 4.30 | 4.70 |
| L | 2.90 | 3.30 |
| M | 8.20 | 9.00 |
| N | 2.50 | 2.90 |
| O | 0.40 | 0.80 |

All Dimensions in millimeter

TO-263 (D²PAK)



| Dim. | Min. | Max. |
|------|-------|-------|
| A | 9.65 | 10.69 |
| B | 7.30 | Ref. |
| C | 1.30 | Ref. |
| E | 14.70 | 15.90 |
| F | 1.5 | Ref. |
| G | 0.76 | 1.00 |
| H | 1.14 | 1.70 |
| I | 2.54 | Ref. |
| J | 8.55 | 9.50 |
| K | 4.40 | 4.85 |
| L | 1.25 | 1.50 |
| M | ---- | 0.25 |
| N | 2.30 | 2.80 |
| O | 0.36 | 0.60 |

All Dimensions in millimeter

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