

Feaures

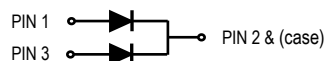
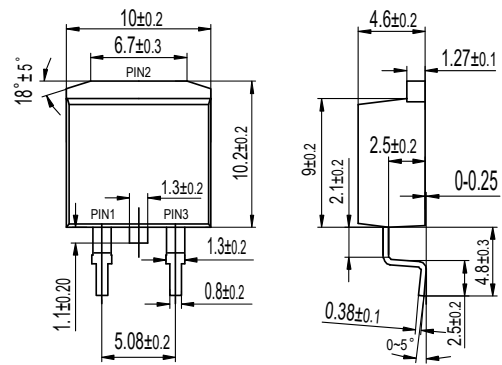
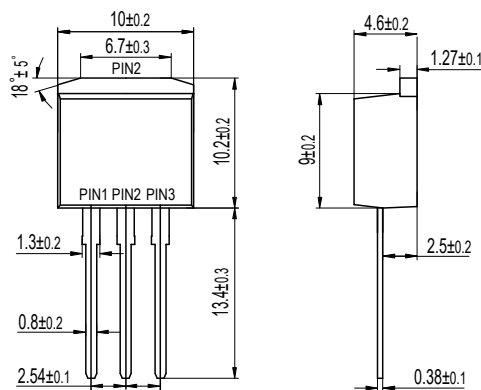
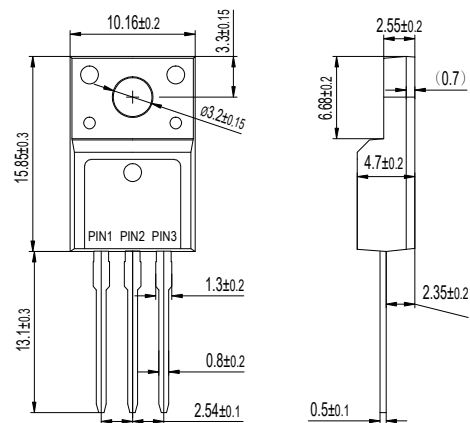
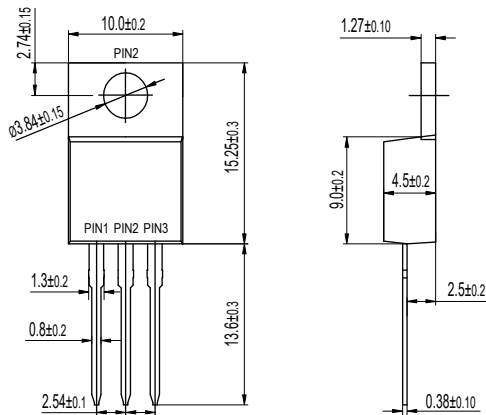
- High efficiency operation
- Low power loss
- Low stored charge majority carrier conduction
- High forward surge capability
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std..(Halogen Free)

Mechanical Data

- Circuit figure: Common cathode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AB 1.85 grams
 ITO-220AB 1.70 grams
 TO-262AB 1.45 grams
 TO-263(D²PAK) 1.35 grams

Package outline

Dimensions in millimeters



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C)

| RATINGS | SYMBOL | SR | SR | SR | SR | SR | SR | UNIT |
|--|-------------------|---|---|---|---|---|---|------|
| | | 4040CT 4040FCT 4040WCT 4040DCT | 4045CT 4045FCT 4045WCT 4045DCT | 4060CT 4060FCT 4060WCT 4060DCT | 40100CT 40100FCT 40100WCT 40100DCT | 40150CT 40150FCT 40150WCT 40150DCT | 40200CT 40200FCT 40200WCT 40200DCT | |
| Maximum repetitive reverse voltage | VRRM | 40 | 45 | 60 | 100 | 150 | 200 | V |
| Maximum RMS voltage | VRMS | 28 | 32 | 42 | 70 | 105 | 140 | V |
| Maximum DC blocking voltage | VDC | 40 | 45 | 60 | 100 | 150 | 200 | V |
| Maximum average forward current per device per diode | I _{AV} | 40 20 | | | | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 380 | | | | | | A |
| Typical thermal resistance (Note 1) | R _{θ-JC} | TO-220AB 2.0 ITO-220AB 4.5 TO-262AB 2.5 TO-263(D ² PAK) 2.5 | | | | | | °C/W |
| Operating junction temperature range | T _J | -55 to +150 | | | | -55 to +175 | | °C |
| Storage temperature range | T _{STG} | -55 to +175 | | | | | | °C |
| CHARACTERISTICS | SYMBOL | SR | SR | SR | SR | SR | SR | UNIT |
| | | 3040CT 3040FCT 3040WCT 3040DCT | 3045CT 3045FCT 3045WCT 3045DCT | 3060CT 3060FCT 3060WCT 3060DCT | 30100CT 30100FCT 30100WCT 30100DCT | 30150CT 30150FCT 30150WCT 30150DCT | 30200CT 30200FCT 30200WCT 30200DCT | |
| Maximum forward voltage per leg at I _F =20A | V _F | 0.65 | | 0.75 | 0.85 | 0.95 | | V |
| Maximum average reverse current at rated DC blocking voltage | I _R | T _J =25°C 0.10 T _J =125°C 15 | | | 0.02 8 | | | mA |

Notes: 1. Thermal resistance from junction to case.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

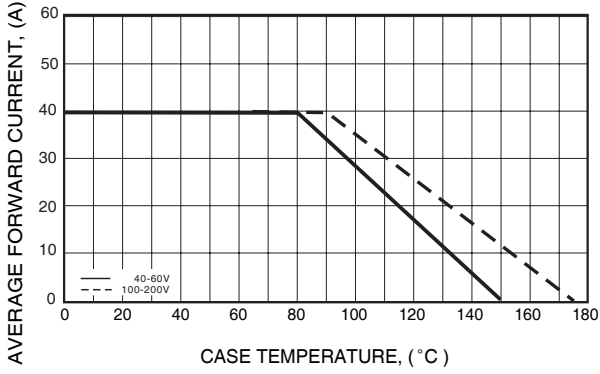


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

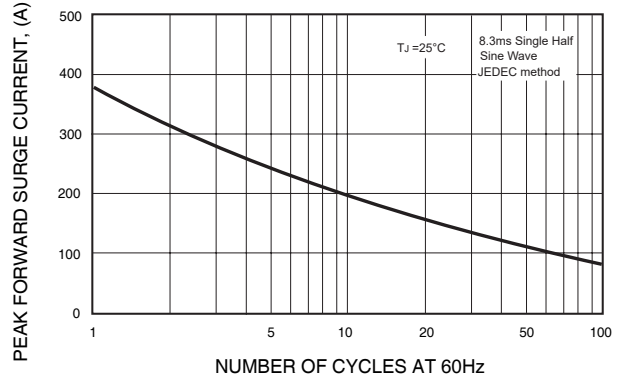


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

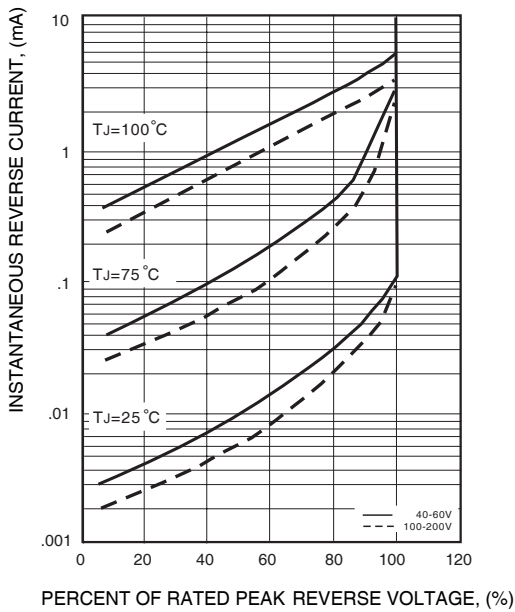


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

