

■ Features

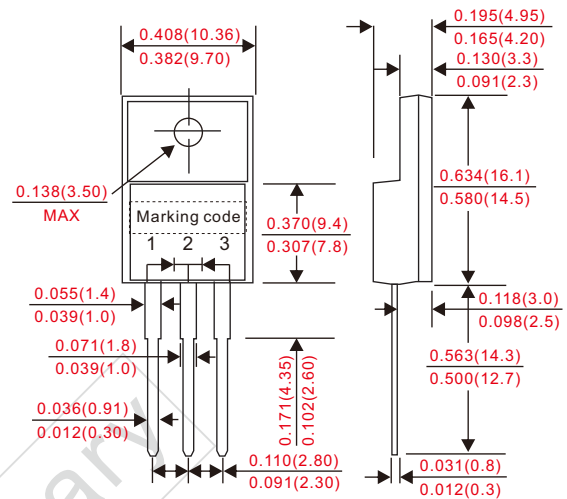
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CSF40S120CTG-A.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC ITO-220AB molded plastic body over passivated chip.
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed.
- Polarity: Color band denotes cathode end.
- Mounting Position : Any.
- Weight : Approximated 2.25 gram.

■ Outline

ITO-220AB



■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter | Conditions | Symbol | CSF40S120CT-A | UNIT |
|--|--|-----------------|---------------|------|
| Marking code | | | CSF40S120CT | |
| Peak repetitive reverse voltage | | V_{RRM} | | |
| Working peak reverse voltage | | V_{RWM} | 120 | V |
| DC blocking voltage | | V_{RM} | | |
| Forward rectified current (total device) | | I_O | 40 | A |
| Forward surge current (per diode) | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | 300 | A |
| Thermal resistance(1) (per diode) | Junction to case | $R_{\theta JC}$ | 4 | °C/W |
| Operating and Storage temperature | | T_J, T_{STG} | -65 ~ +150 | °C |

| Parameter | Conditions | Symbol | MIN. | TYP. | MAX. | UNIT |
|----------------------------------|------------------------------------|--------|------|------|------|------|
| Forward voltage drop (per diode) | $I_F = 20A, T_J = 25^\circ C$ | V_F | | | 860 | mV |
| | $I_F = 20A, T_J = 125^\circ C$ | | | | 710 | |
| Reverse current (per diode) | $V_R = V_{RRM}, T_J = 25^\circ C$ | I_R | | | 0.5 | mA |
| | $V_R = V_{RRM}, T_J = 125^\circ C$ | | | | 40 | |

Note : 1. Thermal resistance from junction to case per leg, with heatsink size (1.35" x 0.95" x 0.18") Al-plate.

■ Rating and characteristic curves

Fig. 1 - Forward Current Derating Curve

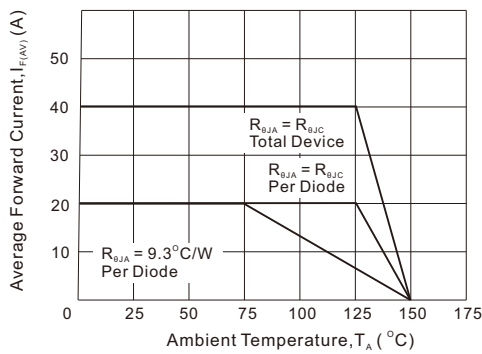


Fig. 2 - Instantaneous Forward Characteristics (per diode)

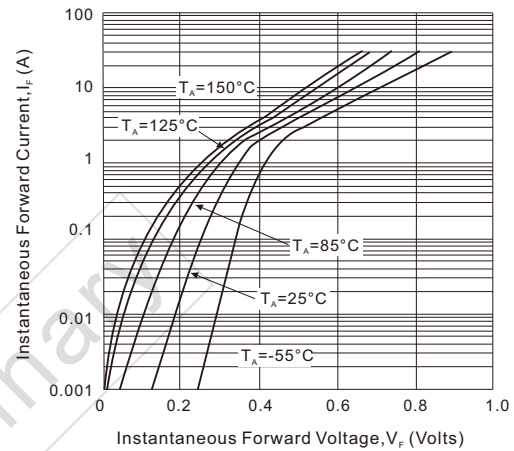
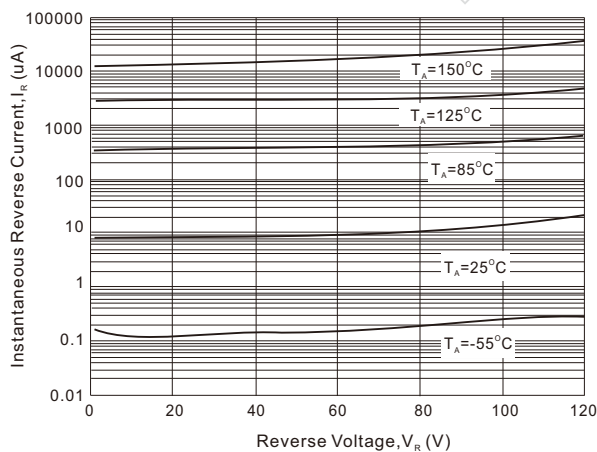


Fig. 3 - Reverse Characteristics (per diode)



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Preliminary