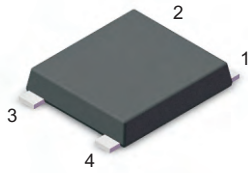


Ultrasoft Recovery Bridge



MSB Package

PINNING

| PIN | DESCRIPTION |
|-----|----------------------|
| 1 | Input Pin (~) |
| 2 | Input Pin (~) |
| 3 | Output Anode (+) |
| 4 | Output Cathode (-) |

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

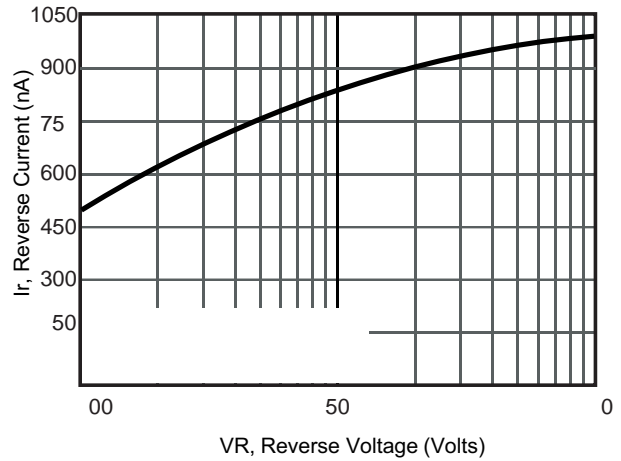
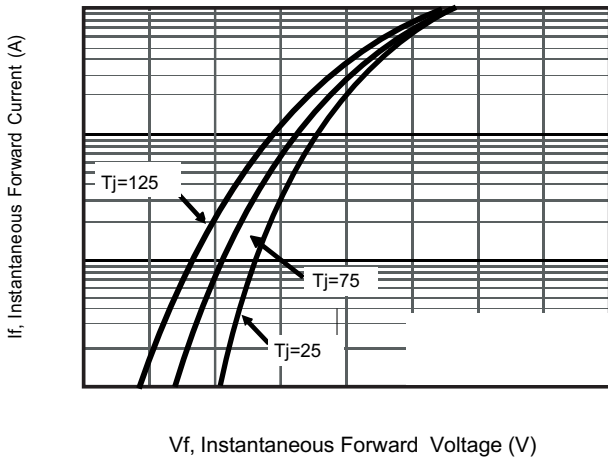
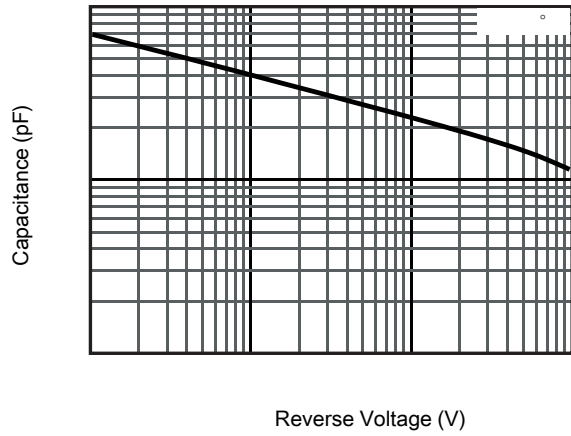
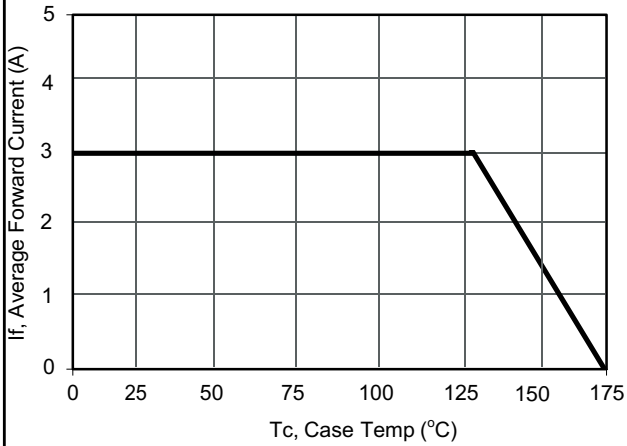
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter | Symbols | XBS30J | XBS30K | XBS30M | Units |
|---|--------------------------|------------|--------|--------|------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 600 | 800 | 1000 | V |
| Average Rectified Output Current | I_o | 3.0 | | | A |
| Reverse Recovery Time. IF=0.5A, IR=1A, IRR=0.25A | T_{rr} | 10 | | | us |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 10 | | | A |
| $I^2 t$ rating for fusing (1ms < t < 10ms) | $I^2 t$ | | | | A ² S |
| Maximum Forward Voltage at 1.5 A | V_F | 1.0 | | | V |
| Maximum DC Reverse Current @ $T_A=25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125\text{ }^\circ\text{C}$ | I_R | 5 100 | | | A |
| Typical Junction Capacitance (Note1) | C_j | 40 | | | pF |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +175 | | | °C |
| Typical thermal resistance (Note 2) | R_{thJc} R_{thJa} | 6 12 | | | °C/W |

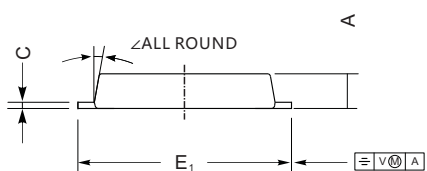
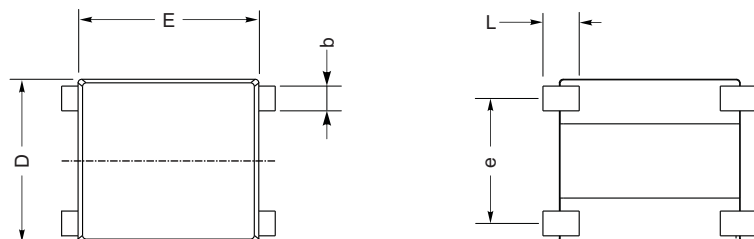
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Thermal resistance from Junction to case, lead and ambient in accordance with JESD-51.
Unit mounted on 15mm*12mm*1.6mm AL pad attach 195mm*195mm*10mm steel plate

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



PACKAGE OUTLINE DIMENSIONS



| UNIT | | | | | |
|------|-----|-----|------|-----|-----|
| mm | max | 1.5 | 0.29 | 8.9 | 10° |
| | min | 1.3 | 0.17 | 8.4 | |
| | | | | | |