

Ultrasoft Recovery Bridge



PINNING

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

Features

- Ultrasoft recovery
- low I_{RRM}
- low VF
- High V_{RRM}
- Special frame design for heat dissipation

Benefits

- Reduced EMI
- Reduced power loss and switching transistor
- Reduced snubbing

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

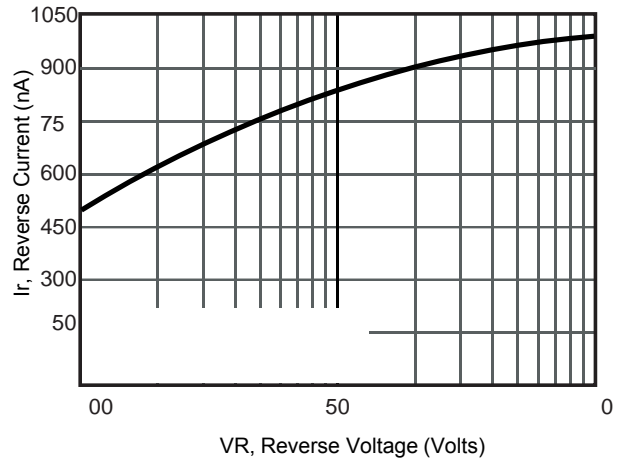
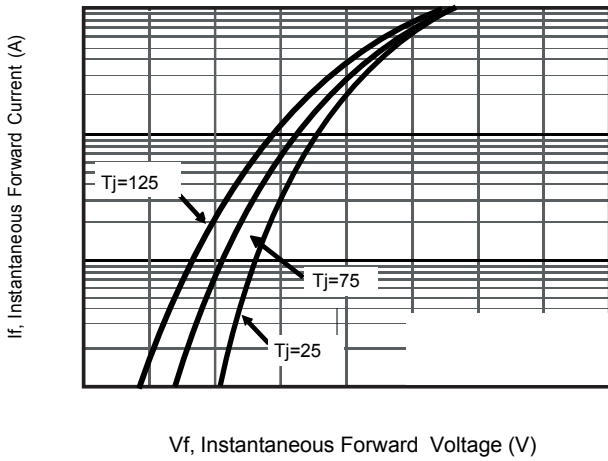
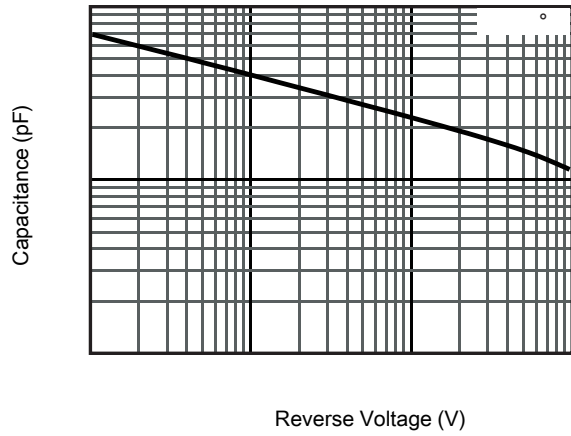
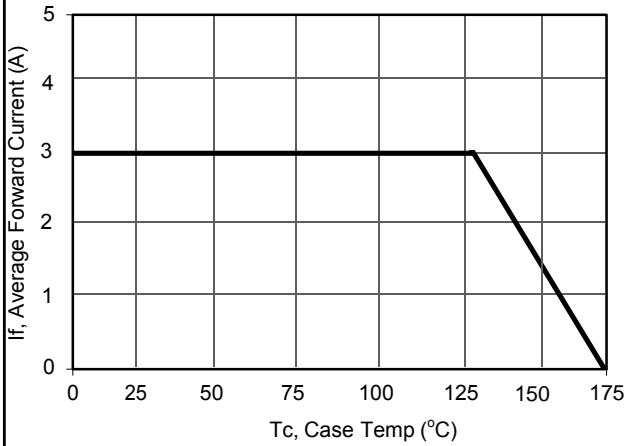
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

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			μA
Typical Junction Capacitance (Note1)	C_j	40			pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +175			$^\circ\text{C}$
Typical thermal resistance (Note 2)	R_{thJc} R_{thJa}	6 12			$^\circ\text{C/W}$

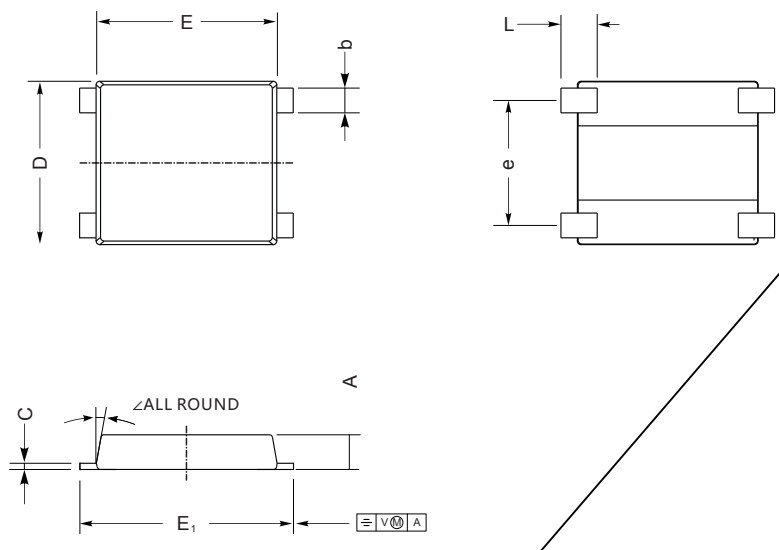
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

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	
	min	1.3	0.17	8.4	
					10°