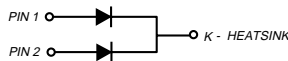
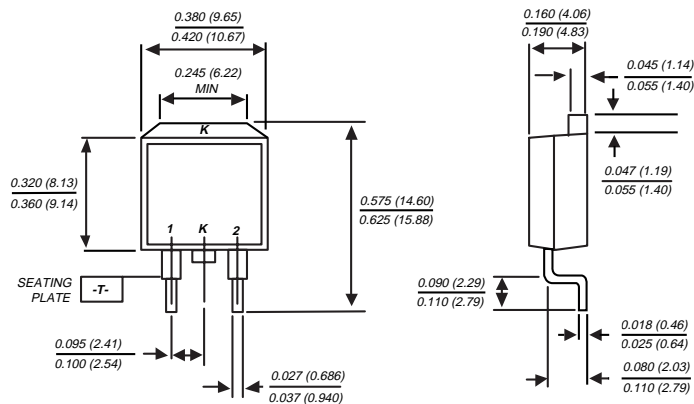


FEPB6AT THRU FEPB6DT

FAST EFFICIENT PLASTIC RECTIFIER

Reverse Voltage - 50 to 200 Volts Forward Current - 6.0 Amperes

TO-263AB



Dimensions are in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Dual rectifier construction, positive center-tap
- ◆ Glass passivated chip junctions
- ◆ Superfast recovery times for high efficiency
- ◆ Low power loss
- ◆ Low forward voltage, high current capability
- ◆ For use in low voltage, high frequency inverters, free wheeling and polarity protection applications
- ◆ High temperature soldering in accordance with CECC 802 / Reflow guaranteed



MECHANICAL DATA

Case: JEDEC TO-263AB molded plastic body

Terminals: Plated lead solderable per MIL-STD-750, Method 2026

Polarity: As marked

Mounting Position: Any

Weight: 0.08 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	FEPB6AT	FEPB6BT	FEPB6CT	FEPB6DT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	Volts
Maximum average forward rectified current $T_C=100^\circ\text{C}$	$I_{(AV)}$	6.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0				Amps
Maximum instantaneous forward voltage per leg at 3.0A	V_F	0.975				Volts
Maximum DC reverse current at rated DC blocking voltage $T_C=25^\circ\text{C}$ $T_C=100^\circ\text{C}$	I_R	5.0 50.0				μA
Maximum reverse recovery time per leg (NOTE 1)	t_{rr}	35.0				ns
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	3.6				$^\circ\text{C}/\text{W}$
Typical junction capacitance per leg (NOTE 3)	C_J	28.0				pF
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150				$^\circ\text{C}$

NOTES:

(1) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

(2) Thermal resistance from junction to case per leg mounted on heatsink

(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTICS CURVES FEPB6AT THRU FEPB6DT

FIG. 1 - FORWARD CURRENT DERATING CURVE

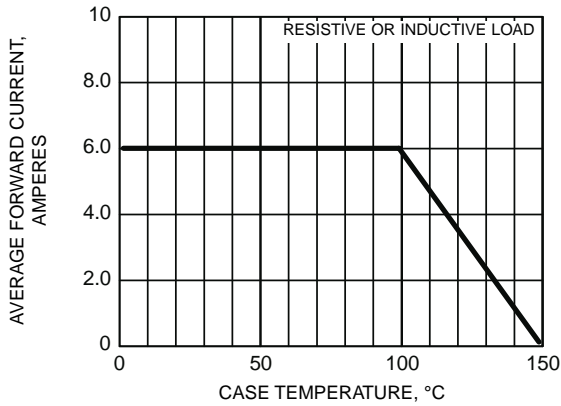


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

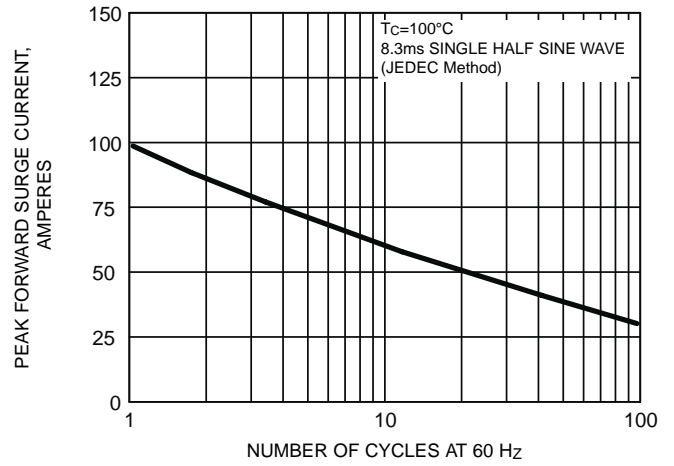


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

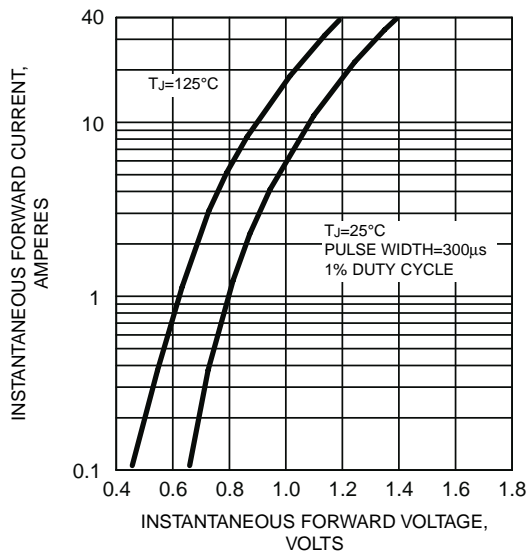


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

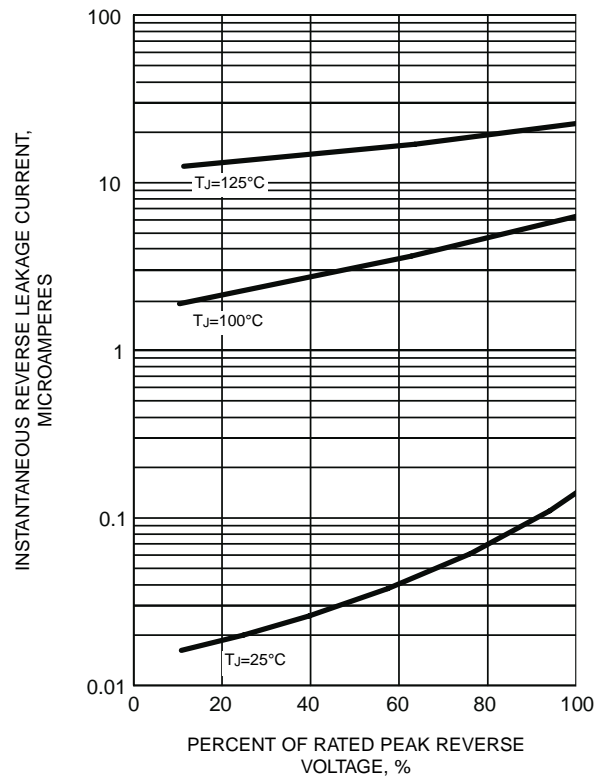


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

