TECHNICAL DATA
DATA SHEET 4842,REV.-

Green Products

FEP16AT-G-FEP16JT-G
ULTRAFAST PLASTIC RECTIFIER

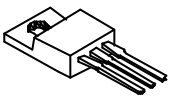
Mechanical Data

- **Case: JEDEC TO-220AB molded plastic body over passivated chips**
- **Terminals: Plated leads solderable per MIL-STD-750, Method 2026**
- **Polarity: As marked**
- **Mounting Position: Any**
- **Mounting Torque: 5 in. - lbs. max.**
- **Weight: 0.08 ounce, 2.24 grams**

Features:

- **Low forward voltage drop**
- **High surge current capacity**
- **High current capability**
- **High reliability**
- **Superfast recovery times for high efficiency**
- **Dual rectifier construction, positive centertap**
- **Green Products in Compliance with the RoHS Directive**

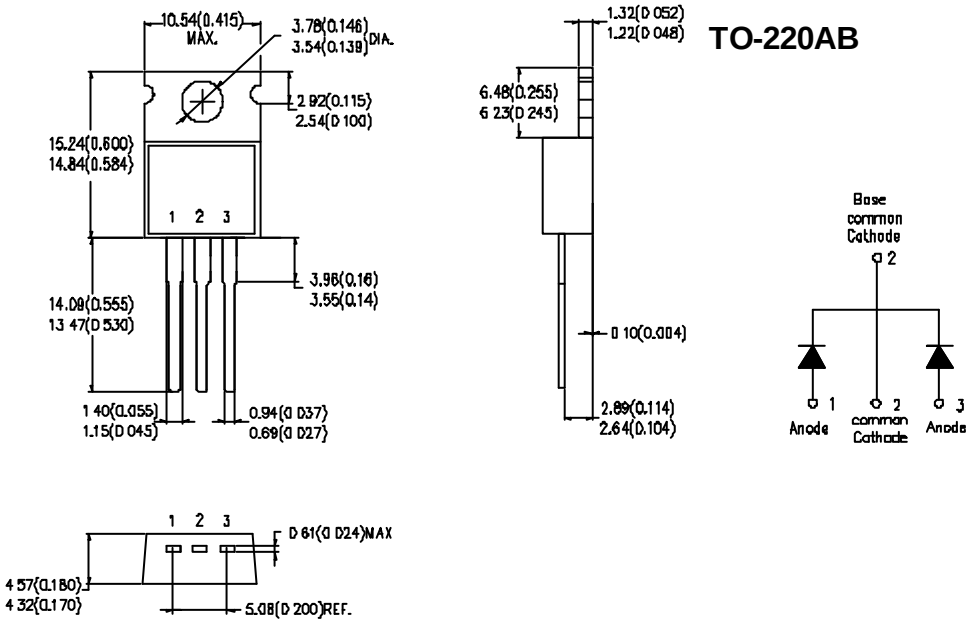
Case styles



TO-220AB

Mechanical Dimensions: In Inches / mm

TO-220AB



Maximum Ratings and Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise noted.

Parameter	Symbol	FEP 16AT-G	FEP 16BT-G	FEP 16CT-G	FEP 16DT-G	FEP 16FT-G	FEP 16GT-G	FEP 16HT-G	FEP 16JT-G	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current at TC = 100°C	$I_{F(AV)}$	16								A
Peak forward surge current 8.3 ms single halfsine wave superimposed on rated load (JEDEC method)	I_{FSM}	200								A
Typical thermal reisistance (NOTE 3)	$R_{\Theta JA}$ $R_{\Theta JC}$	15.0 2.2								°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150								°C/W

Electrical Characteristics

Parameter	Symbol	FEP 16AT-G	FEP 16BT-G	FEP 16CT-G	FEP 16DT-G	FEP 16FT-G	FEP 16GT-G	FEP 16HT-G	FEP 16JT-G	Unit
Maximum instantaneous forward voltage per leg at 8.0 A	V_F	0.95				1.3		1.5		V
Maximum DC reverse current at T_C = 25°C rated DC blocking voltage per leg T_C = 100°C	I_R	10 500								µA
Maximum reverse recovery time per leg (NOTE 1)	t_{rr}	35				50				ns
Typical junction capacitance per leg (NOTE 2)	C_J	85.0						60		pF

NOTES: (1) Reverse recovery test conditions: I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V
(3) Thermal resistance from junction to ambient and from junction to case per leg mounted on heatsink

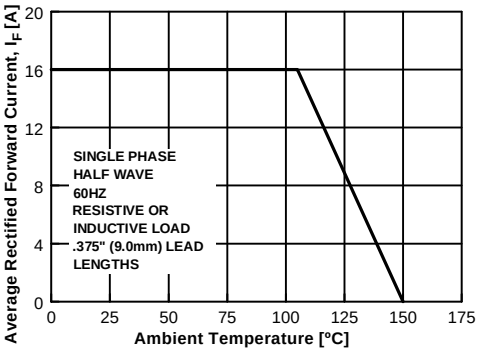


Figure 1. Forward Current Derating Curve

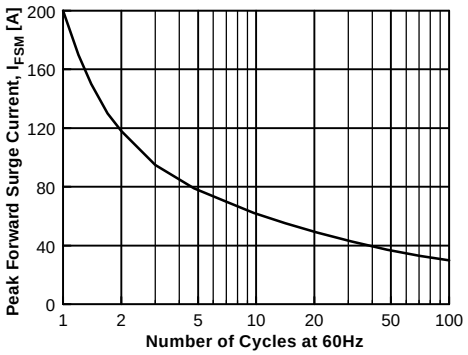


Figure 2. Non-Repetitive Surge Current Reverse Characteristics

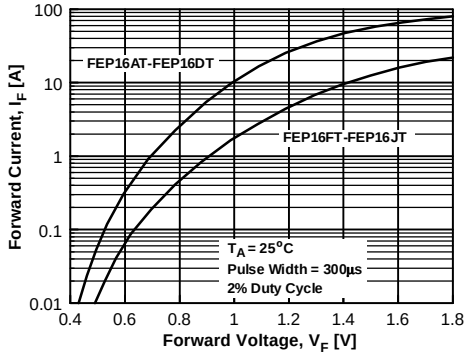


Figure 3. Forward Voltage Characteristics

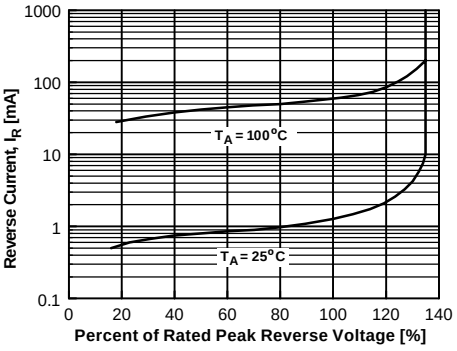


Figure 4. Reverse Current vs Reverse Voltage

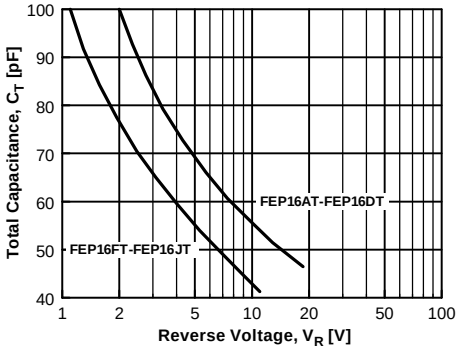
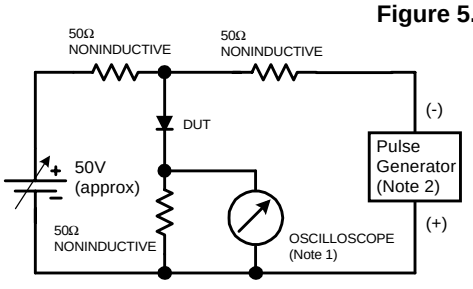
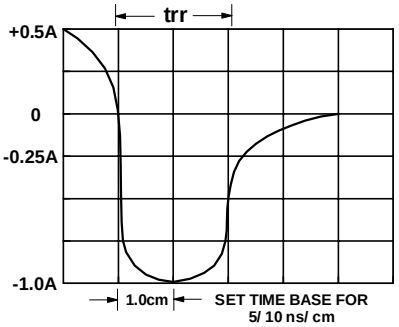


Figure 5. Total Capacitance





Reverse Recovery Time Characterstic and Test Circuit Diagram