

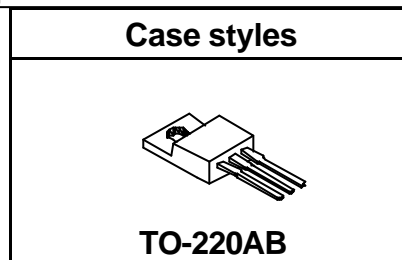
FEP16AT-G-FEP16JT-G
ULTRAFAST PLASTIC RECTIFIER

Mechanical Data

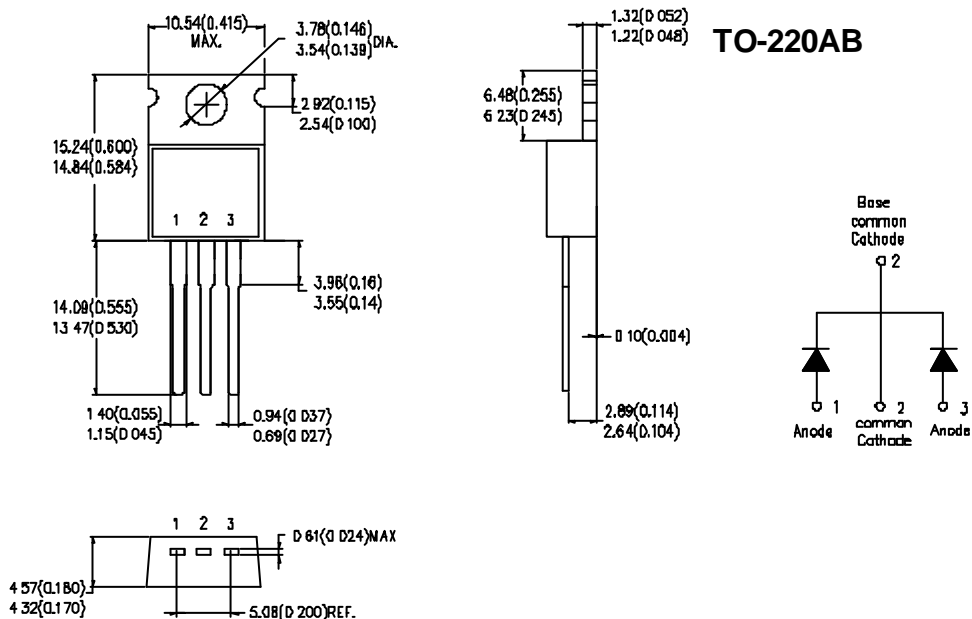
- Case: JEDEC TO-220AB molded plastic body over passivated chips
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting Position: Any
- Mounting Torque: 5 in. - lbs. max.
- Weight: 0.08 ounce, 2.24 grams

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



Mechanical Dimensions: In Inches / mm



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 resistance (NOTE 3)	R _{θJA} R _{θJC}	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 rated DC blocking voltage per leg	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, I_{rr} = 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

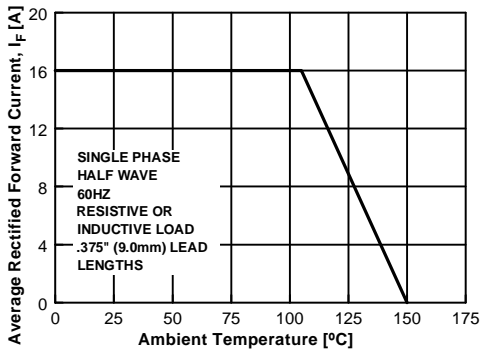


Figure 1. Forward Current Derating Curve

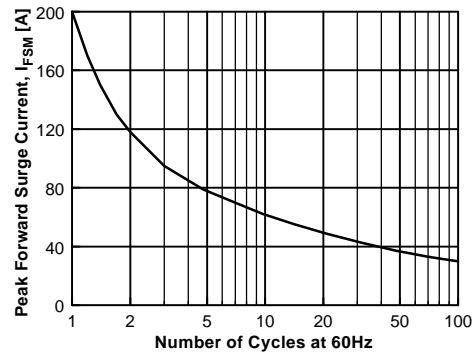


Figure 2. Non-Repetitive Surge Current Reverse Characteristics

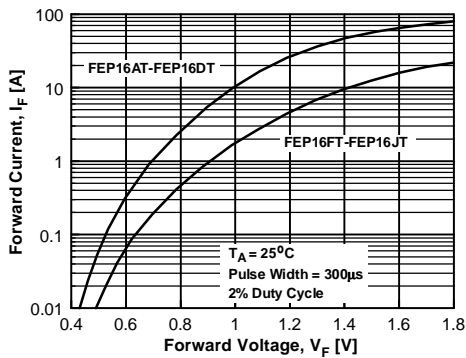


Figure 3. Forward Voltage Characteristics

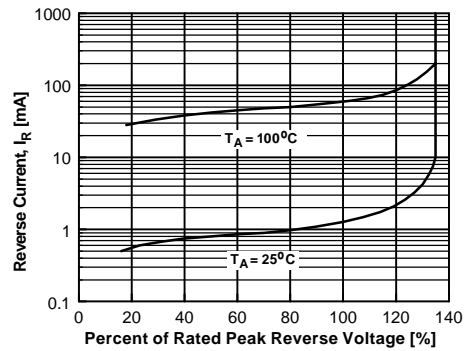


Figure 4. Reverse Current vs Reverse Voltage

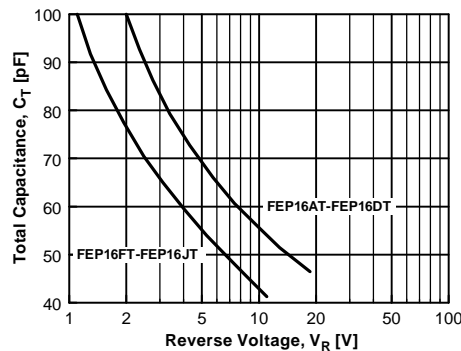
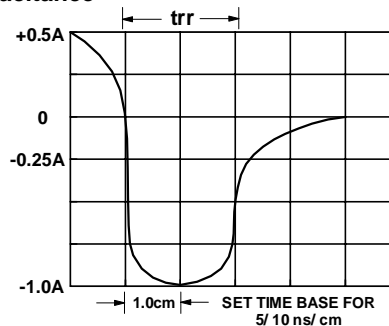
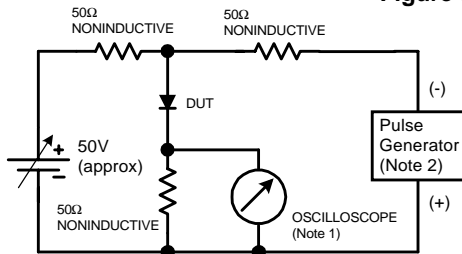


Figure 5. Total Capacitance



Reverse Recovery Time Characteristic and Test Circuit Diagram

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