

Silicon Diode

FEP30AP

Fast Efficient Rectifier

50V / 30A

DATASHEET

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OEM – General Semiconductor

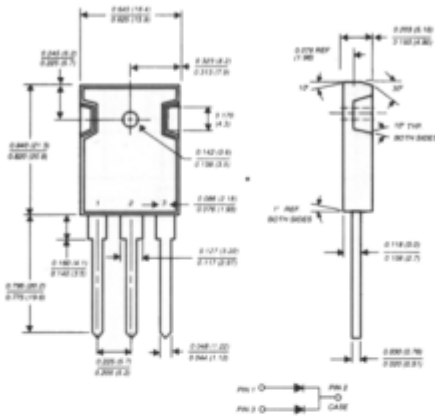
Source: General Semiconductor Databook 1998

FEP30AP THRU FEP30JP

FAST EFFICIENT PLASTIC RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 30.0 Amperes

TO-247AD



Dimensions 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 forward voltage, high current capability
- ◆ Low thermal resistance
- ◆ Low power loss
- ◆ High temperature soldering guaranteed: 250°C, 0.16" (4.06mm) from case for 10 seconds



MECHANICAL DATA

Case: JEDEC TO-247AD molded plastic body over passivated chips
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Mounting Torque: 10 in. - lbs. max.
Weight: 0.22 ounce, 6.3 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	FEP 30AP	FEP 30BP	FEP 30CP	FEP 30DP	FEP 30FP	FEP 30GP	FEP 30HP	FEP 30JP	UNITS	
Maximum repetitive peak reverse voltage	VRRM	50	100	150	200	300	400	500	600	Volts	
Maximum RMS voltage	VRMS	35	70	105	140	210	280	350	420	Volts	
Maximum DC blocking voltage	VDC	50	100	150	200	300	400	500	600	Volts	
Maximum average forward rectified current at TC=100°C	I(AV)	30.0								Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at TC=100°C	IFSM	300.0								Amps	
Maximum instantaneous forward voltage per leg at 15.0A	VF	0.95			1.3		1.5			Volts	
Maximum DC reverse current at rated DC blocking voltage TC=25°C TC=100°C	IR	10.0 500.0								µA	
Maximum reverse recovery time (NOTE 1) per leg	trr	35.0			50.0					ns	
Typical junction capacitance per leg (NOTE 2)	CJ	175.0						145.0			pF
Typical thermal resistance (NOTE 3)	RθJC	1.0								°C/W	
Operating storage and temperature range	TJ, TSTG	-55 to +150								°C	

NOTES:

- 1) Reverse recovery test conditions: Ir=0.5A, If=1.0A, Itr=0.25A
- 2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- 3) Thermal resistance from junction to case per leg mounted on heatsink

RATINGS AND CHARACTERISTIC CURVES FEP30AP THRU FEP30JP

