

FEP6xT, FEPF6xT, FEPB6xT

Vishay General Semiconductor

ELECTRICAL CHARACTERISTICS (T _C = 25 °C unless otherwise noted)								
PARAMETER	TEST CONDITIONS		SYMBOL	FEP6AT	FEP6BT	FEP6CT	FEP6DT	UNIT
Maximum instantaneous forward voltage per diode	3.0 A		V _F ⁽¹⁾	0.975			V	
Maximum DC reverse current		T _C = 25 °C	I _R	5.0				μΑ
at rated DC blocking voltage per diode		T _C = 100 °C	'n	50				
Maximum reverse recovery time per diode	$I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A},$ $I_{rr} = 0.25 \text{ A}$		t _{rr}	35			ns	
Typical junction capacitance per diode	4.0 V, 1 MHz		CJ	28			pF	

Note

 $^{^{(1)}\,}$ Pulse test: 300 μs pulse width, 1 % duty cycle

THERMAL CHARACTERISTICS (T _C = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	FEP6	FEPF6	FEPB6	UNIT		
Typical thermal resistance from junction to case per diode	$R_{\theta JC}$	3.6	5.1	3.6	°C/W		

ORDERING INFORMATION (Example)							
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE		
TO-220AB	FEP6DT-E3/45	1.81	45	50/tube	Tube		
ITO-220AB	FEPF6DT-E3/45	1.97	45	50/tube	Tube		
TO-263AB	FEPB6DT-E3/45	1.33	45	50/tube	Tube		
TO-263AB	FEPB6DT-E3/81	1.33	81	800/reel	Tape and reel		
ITO-220AB	FEPF6DTHE3/45 ⁽¹⁾	1.97	45	50/tube	Tube		
TO-263AB	FEPB6DTHE3/45 (1)	1.33	45	50/tube	Tube		
TO-263AB	FEPB6DTHE3/81 (1)	1.33	81	800/reel	Tape and reel		

Note

⁽¹⁾ Automotive grade, available in ITO-220AB and TO-263AB package

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RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

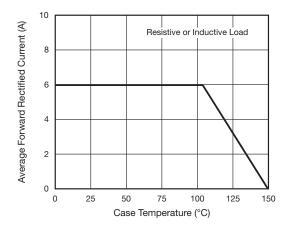


Fig. 1 - Maximum Forward Current Derating Curve

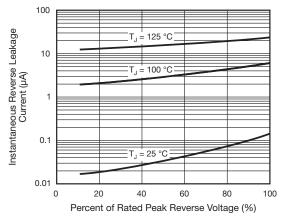


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

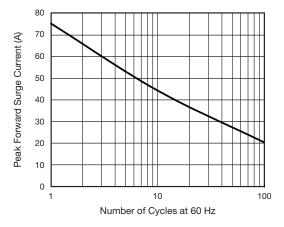


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

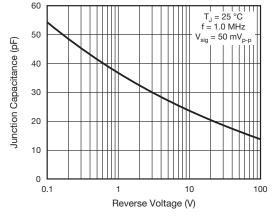


Fig. 5 - Typical Junction Capacitance Per Diode

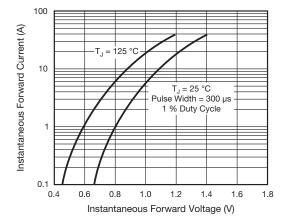


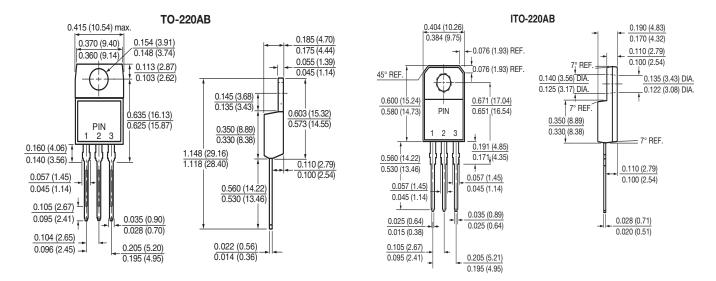
Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode



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PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



D²PAK (TO-263AB) 0.411 (10.45) 0.190 (4.83) 0.380 (9.65) 0.055 (1.40) 0.160 (4.06) 0.045 (1.14) 0.245 (6.22) MIN. 0.055 (1.40) 0.360 (9.14) 0.047 (1.19) 0.320 (8.13) 0.624 (15.85) Κ 0.591 (15.00) -0 to 0.01 (0 to 0.254) 0.110 (2.79) 0.090 (2.29) 0.037 (0.940) 0.021 (0.53) 0.027 (0.686) 0.014 (0.36) 0.105 (2.67) 0.140 (3.56) 0.095 (2.41) 0.205 (5.20) 0.110 (2.79) 0.195 (4.95)

0.42 (10.66) min. 0.33 (8.38) min. 0.670 (17.02) 0.591 (15.00) 0.15 (3.81) min. 0.08 (2.032) MIN.

0.095 (2.41)

Mounting Pad Layout

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