



ELECTRICAL CHARACTERISTICS ($T_C = 25\text{ }^\circ\text{C}$ unless otherwise noted)												
PARAMETER	TEST CONDITIONS		SYMBOL	FES8AT	FES8BT	FES8CT	FES8DT	FES8FT	FES8GT	FES8HT	FES8JT	UNIT
Max. instantaneous forward voltage ⁽¹⁾	8.0 A		V_F	0.95				1.3		1.5		V
Max. DC reverse current at rated DC blocking voltage		$T_C = 25\text{ }^\circ\text{C}$	I_R	10								μA
		$T_C = 100\text{ }^\circ\text{C}$		500								
Max. reverse recovery time	$I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$ $I_{rr} = 0.25\text{ A}$		t_{rr}	35				50			ns	
Typical junction capacitance	4.0 V, 1 MHz		C_J	85						50		pF

Note

⁽¹⁾ Pulse test: 300 μs pulse width, 1 % duty cycle

THERMAL CHARACTERISTICS ($T_C = 25\text{ }^\circ\text{C}$ unless otherwise noted)					
PARAMETER	SYMBOL	FES	FESF	FESB	UNIT
Typical thermal resistance from junction to case	$R_{\theta JC}$	2.2	5.0	2.2	$^\circ\text{C/W}$

ORDERING INFORMATION (Example)					
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
TO-220AC	FES8JT-E3/45	1.80	45	50/tube	Tube
ITO-220AC	FESF8JT-E3/45	1.85	45	50/tube	Tube
D ² PAK (TO-263AB)	FESB8JT-E3/45	1.33	45	50/tube	Tube
D ² PAK (TO-263AB)	FESB8JT-E3/81	1.33	81	800/reel	Tape and reel
ITO-220AC	FESF8JT _{HE3} _A/P ⁽¹⁾	1.85	P	50/tube	Tube
D ² PAK (TO-263AB)	FESB8JT _{HE3} _A/P ⁽¹⁾	1.33	P	50/tube	Tube
D ² PAK (TO-263AB)	FESB8JT _{HE3} _A/I ⁽¹⁾	1.33	I	800/reel	Tape and reel

Note

⁽¹⁾ AEC-Q101 qualified, available in ITO-220AC and D²PAK (TO-263AB) package



RATINGS AND CHARACTERISTICS CURVES ($T_C = 25\text{ }^\circ\text{C}$ unless otherwise noted)

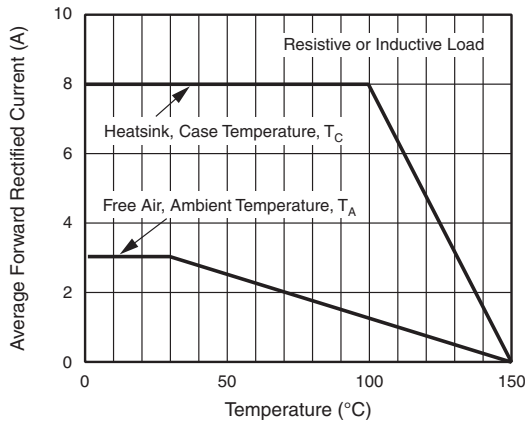


Fig. 1 - Max. Forward Current Derating Curve

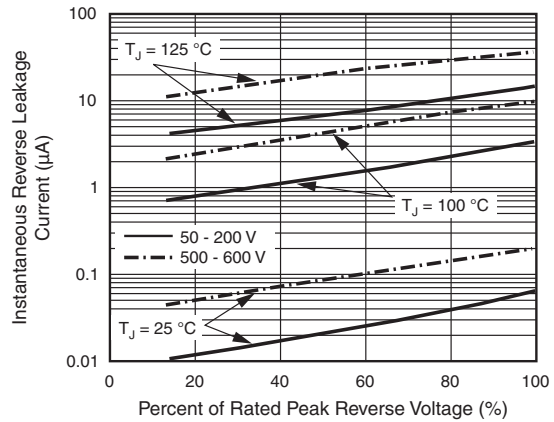


Fig. 4 - Typical Reverse Leakage Characteristics

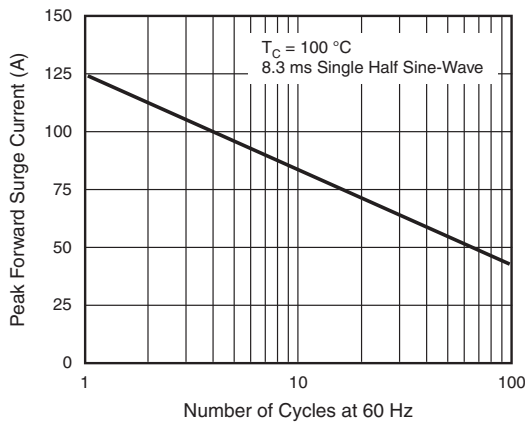


Fig. 2 - Max. Non-Repetitive Peak Forward Surge Current

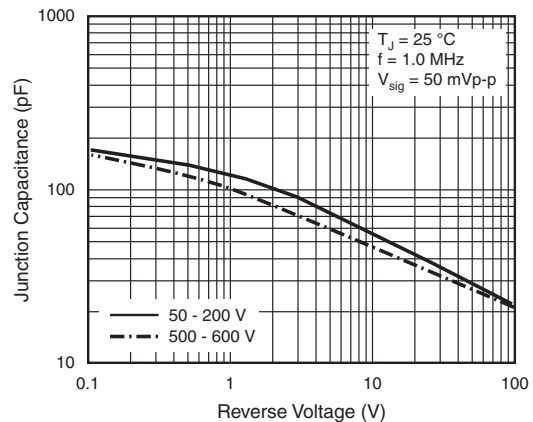


Fig. 5 - Typical Junction Capacitance

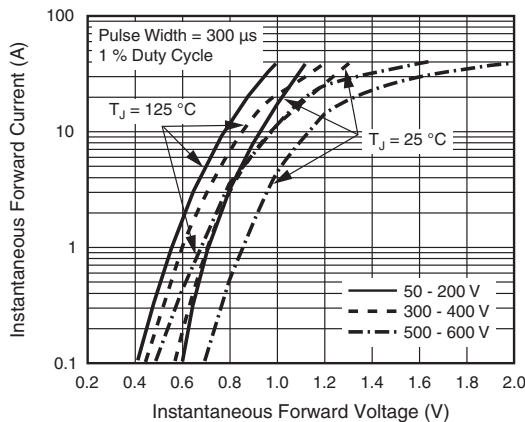
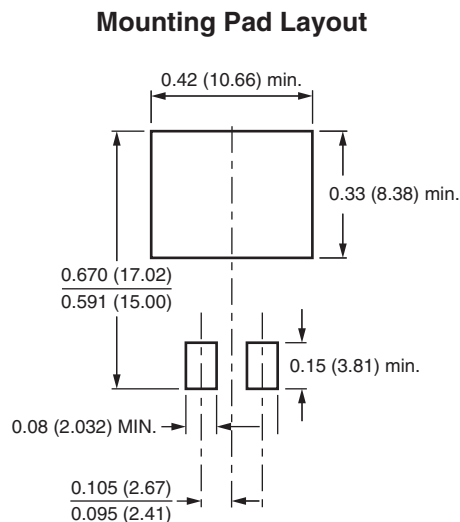
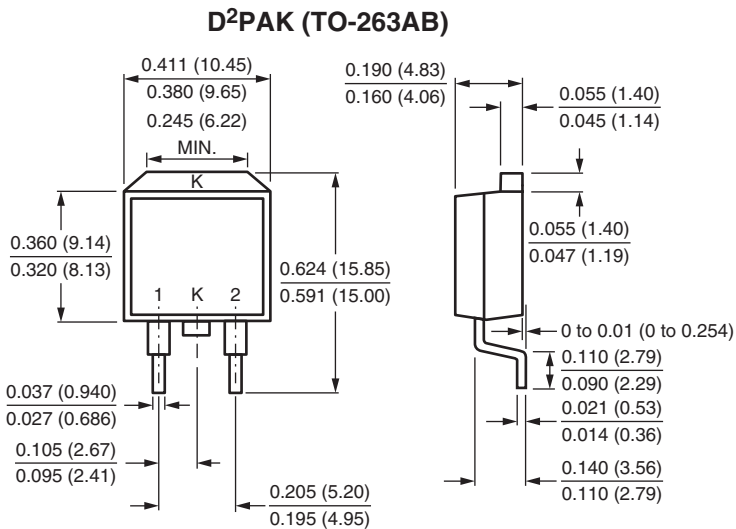
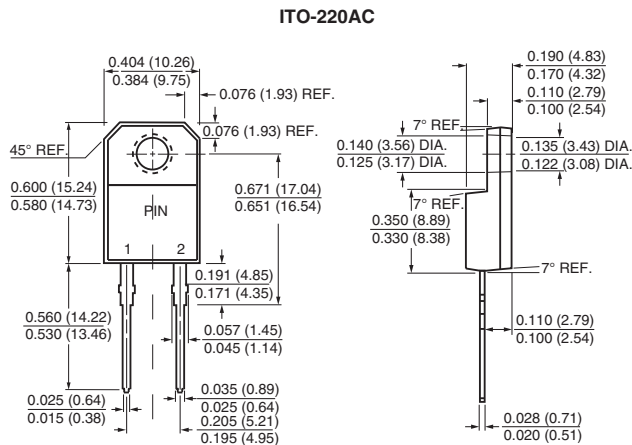
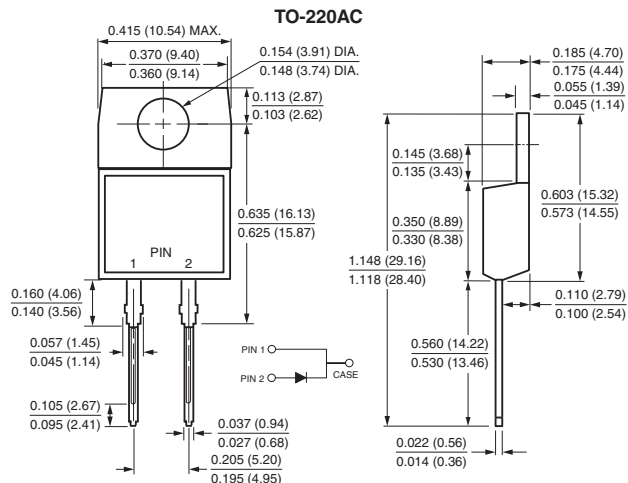


Fig. 3 - Typical Instantaneous Forward Characteristics



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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