



ELECTRICAL CHARACTERISTICS (T _C = 25 °C unless otherwise noted)						
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT
Max. instantaneous forward voltage per diode ⁽¹⁾	I _F = 3.0 A	T _J = 25 °C	V _F	0.97	-	V
	I _F = 5.0 A			1.05	1.10	
	I _F = 3.0 A	T _J = 150 °C		0.79	-	
	I _F = 5.0 A			0.89	0.95	
Max. reverse current per diode ⁽²⁾	rated V _R	T _J = 25 °C	I _R	0.5	5.0	μA
		T _J = 100 °C		100	200	
Max. reverse recovery time per diode	I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A		t _{rr}	13	20	ns
	I _F = 1.0 A, dI/dt = 100 A/μs, V _R = 30 V, I _{rr} = 0.1 I _{RM}			19.7	25	
Max. stored charge per diode	I _F = 2 A, dI/dt = 20 A/μs, V _R = 30 V, I _{rr} = 0.1 I _{RM}		Q _{rr}	3	9	nC

Notes(1) Pulse test: 300 μs pulse width, 1 % duty cycle(2) Pulse test: Pulse width $\leq 40\text{ ms}$

THERMAL CHARACTERISTICS ($T_C = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)					
PARAMETER	SYMBOL	U10XCT	UF10XCT	UB10XCT	UNIT
Typical thermal resistance per diode	$R_{\theta JA}$	25	25	25	$^{\circ}\text{C}/\text{W}$
	$R_{\theta JC}$	5.3	7.5	5.3	

ORDERING INFORMATION (Example)					
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
TO-220AB	U10DCT-E3/4W	1.87	4W	50/tube	Tube
ITO-220AB	UF10DCT-E3/4W	1.77	4W	50/tube	Tube
TO-263AB	UB10DCT-E3/4W	1.31	4W	50/tube	Tube
TO-263AB	UB10DCT-E3/8W	1.31	8W	800/reel	Tape and reel

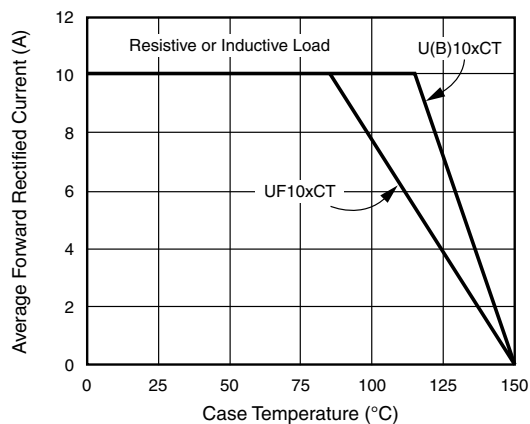
RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

Fig. 1 - Max. Forward Current Derating Curve

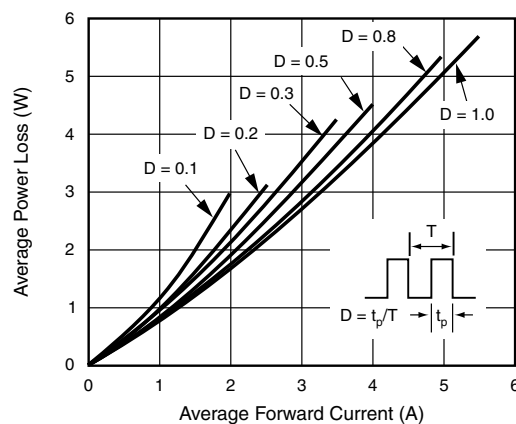


Fig. 2 - Forward Power Loss Characteristics Per Diode

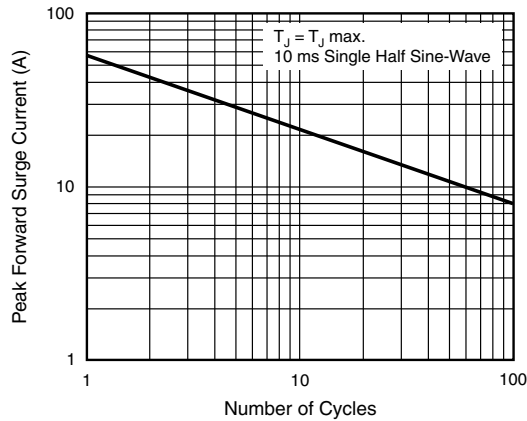


Fig. 3 - Max. Non-Repetitive Peak Forward Surge Current Per Diode

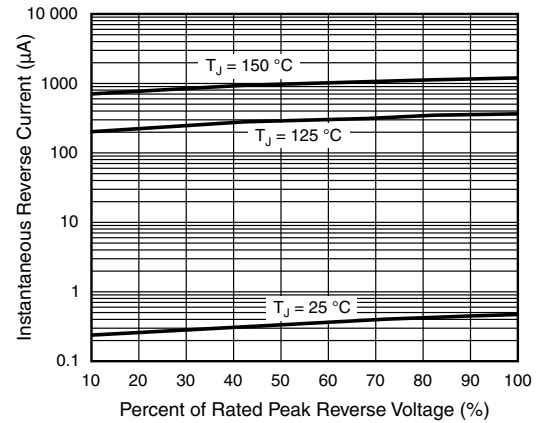


Fig. 5 - Typical Reverse Characteristics Per Diode

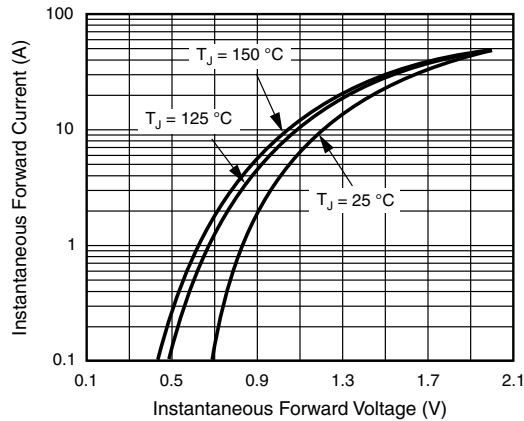


Fig. 4 - Typical Instantaneous Forward Characteristics Per Diode

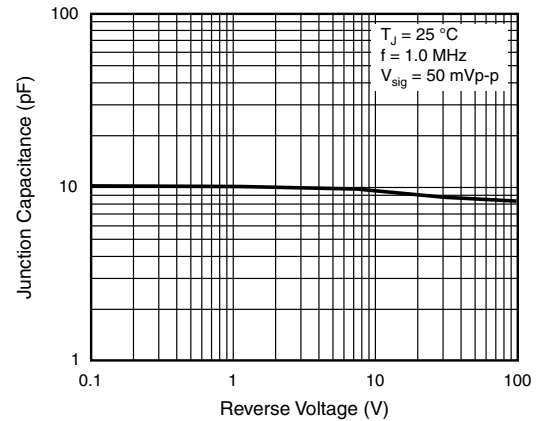
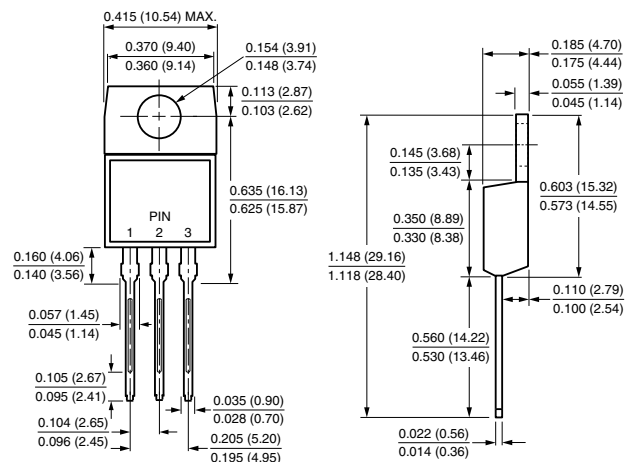


Fig. 6 - Typical Junction Capacitance Per Diode

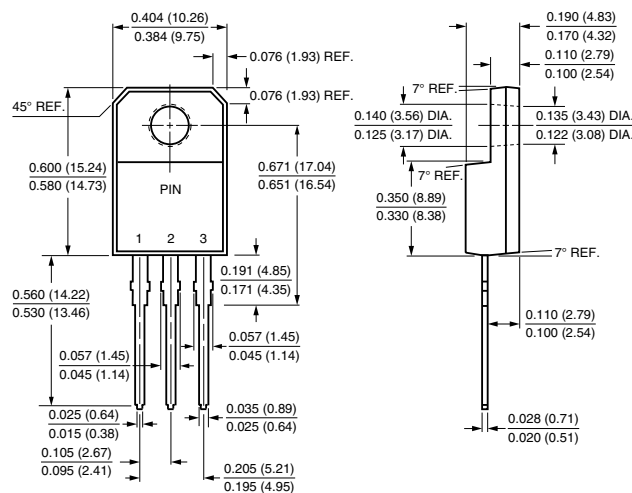


PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

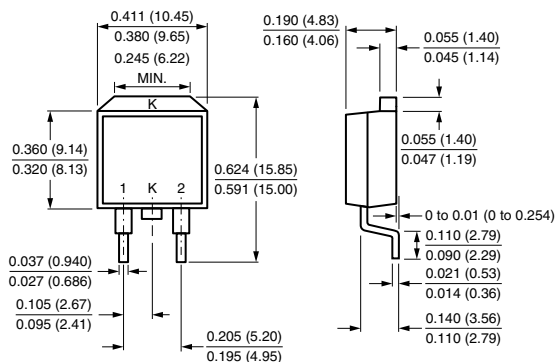
TO-220AB



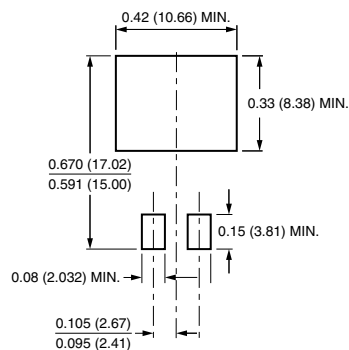
ITO-220AB



TO-263AB



Mounting Pad Layout





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