

ELECTRICAL CHARACTERISTICS (T _C = 25 °C unless otherwise noted)						
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT
Instantaneous forward voltage per diode ⁽¹⁾	I _F = 5.0 A	T _J = 25 °C	V _F	0.854	-	V
	I _F = 10 A			0.931	1.00	
	I _F = 5.0 A	T _J = 100 °C		0.760	-	
	I _F = 10 A			0.834	0.91	
Reverse current per diode ⁽²⁾	rated V _R	T _J = 25 °C	I _R	1.2	15	μA
		T _J = 100 °C		120	500	
Reverse recovery time per diode	I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A		t _{rr}	26	35	ns
Reverse recovery time per diode	I _F = 10 A, dI/dt = 20 A/μs, V _R = 200 V, I _{rr} = 0.1 I _{RM}		t _{rr}	73	80	ns
Stored charge per diode			Q _{rr}	30	-	nC
Forward recovery time per diode	I _F = 10 A, dI/dt = 80 A/μs, V _F = 1.1 x V _F max.		t _{fr}	160	-	ns
Peak forward voltage per diode			V _{FP}	2.6	-	V

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	U20xCT	UB20xCT	UNIT
Typical thermal resistance per diode	$R_{\theta JC}$	3.0		$^{\circ}\text{C}/\text{W}$

ORDERING INFORMATION (Example)					
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
TO-220AB	U20DCT-E3/4W	1.87	4W	50/tube	Tube
TO-263AB	UB20DCT-E3/4W	1.37	4W	50/tube	Tube
TO-263AB	UB20DCT-E3/8W	1.37	8W	800/reel	Tape and reel

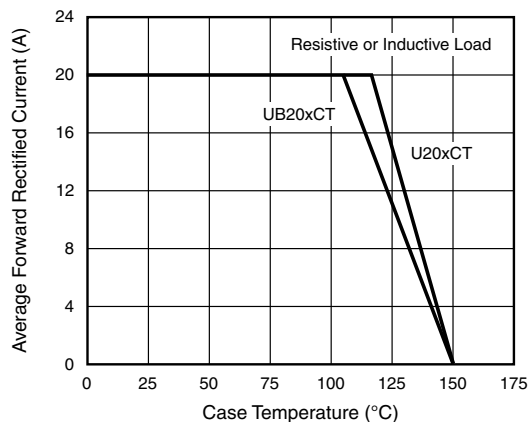
RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)


Fig. 1 - Max. Forward Current Derating Curve

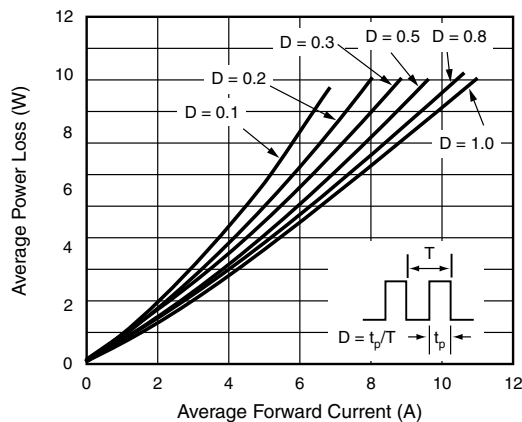


Fig. 2 - Forward Power Loss Characteristics Per Diode

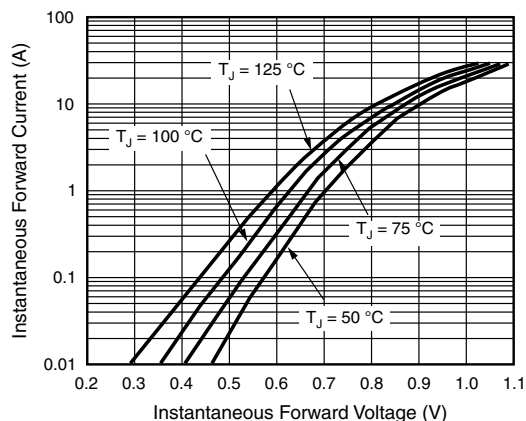


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

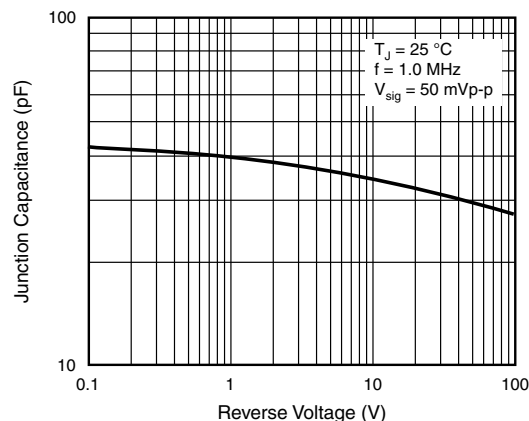


Fig. 5 - Typical Junction Capacitance Per Diode

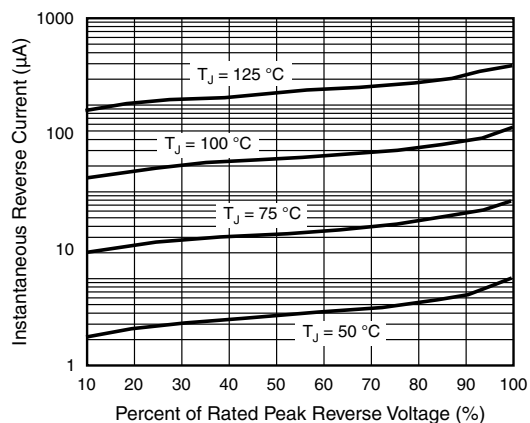


Fig. 4 - Typical Reverse Characteristics Per Diode

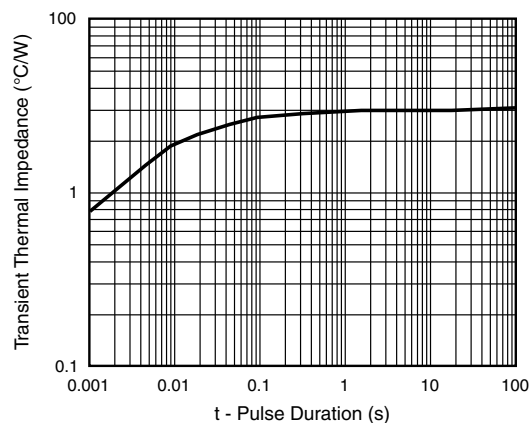
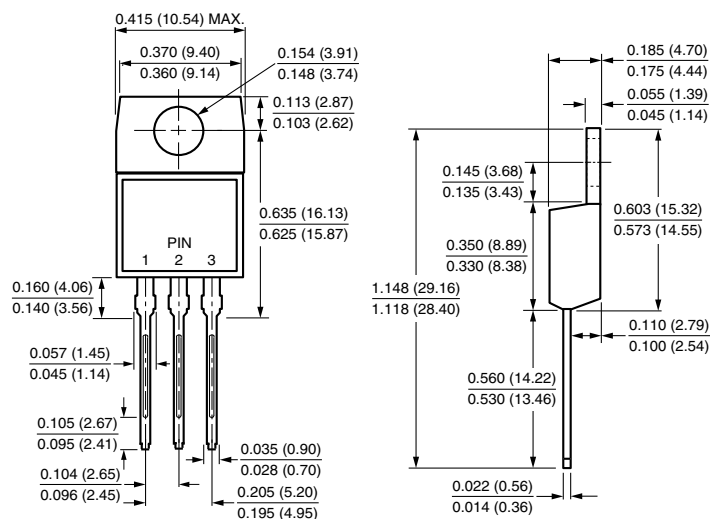


Fig. 6 - Typical Junction Capacitance Per Diode

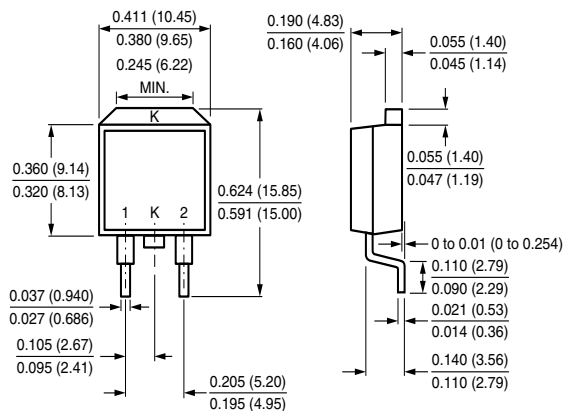


PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

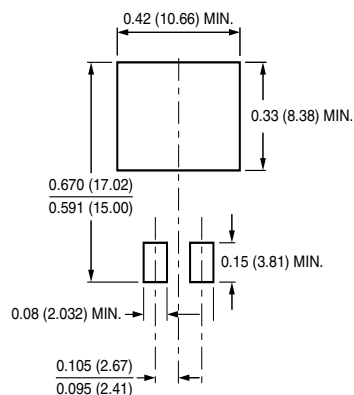
TO-220AB



TO-263AB



Mounting Pad Layout





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