



ELECTRICAL CHARACTERISTICS ($T_C = 25\text{ }^\circ\text{C}$ unless otherwise noted)								
PARAMETER	TEST CONDITIONS		SYMBOL	UG18ACT	UG18BCT	UG18CCT	UG18DCT	UNIT
Max. instantaneous forward voltage per diode ⁽¹⁾	9.0 A	$T_J = 100\text{ }^\circ\text{C}$	V_F	1.1			V	
	20 A			1.2				
	5.0 A			0.95				
Max. DC reverse current at rated DC blocking voltage per diode			I_R	$T_A = 25\text{ }^\circ\text{C}$			10	μA
				$T_A = 100\text{ }^\circ\text{C}$			300	
Max. 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}	20			ns	
Max. reverse recovery time per diode	$I_F = 9.0\text{ A}, V_R = 30\text{ V},$ $di/dt = 50\text{ A}/\mu\text{s},$ $I_{rr} = 10\% I_{RM}$	$T_J = 25\text{ }^\circ\text{C}$	t_{rr}	30			ns	
		$T_J = 100\text{ }^\circ\text{C}$		50				
Max. stored charge per diode	$I_F = 9.0\text{ A}, V_R = 30\text{ V},$ $di/dt = 50\text{ A}/\mu\text{s},$ $I_{rr} = 10\% I_{RM}$	$T_J = 25\text{ }^\circ\text{C}$	Q_{rr}	20			nC	
		$T_J = 100\text{ }^\circ\text{C}$		45				
Typical junction capacitance per diode	at 4.0 V, 1 MHz		C_J	30			pF	

Notes

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

THERMAL CHARACTERISTICS ($T_C = 25\text{ }^\circ\text{C}$ unless otherwise noted)					
PARAMETER	SYMBOL	UG18	UGF18	UGB18	UNIT
Typical thermal resistance from junction to case per diode	$R_{\theta JC}$	4.0	6.0	4.0	$^\circ\text{C}/\text{W}$

ORDERING INFORMATION (EXAMPLE)					
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
TO-220AB	UG18DCT-E3/45	1.85	45	50/tube	Tube
ITO-220AB	UGF18DCT-E3/45	2.00	45	50/tube	Tube
TO-263AB	UGB18DCT-E3/45	1.35	45	50/tube	Tube
TO-263AB	UGB18DCT-E3/81	1.35	81	800/reel	Tape and reel
ITO-220AB	UGF18DCTHE3_A/P ⁽¹⁾	2.00	P	50/tube	Tube
TO-263AB	UGB18DCTHE3_A/P ⁽¹⁾	1.35	P	50/tube	Tube
TO-263AB	UGB18DCTHE3_A/I ⁽¹⁾	1.35	I	800/reel	Tape and reel

Note

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



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

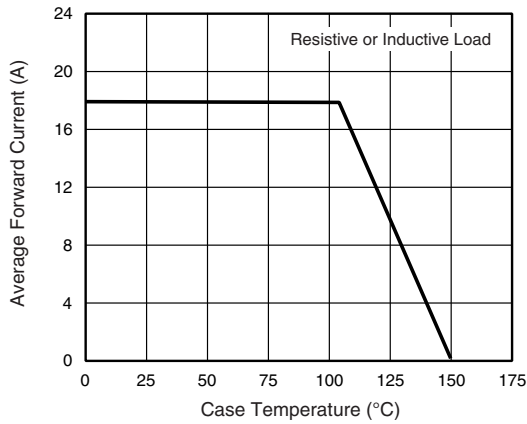


Fig. 1 - Forward Current Derating Curve

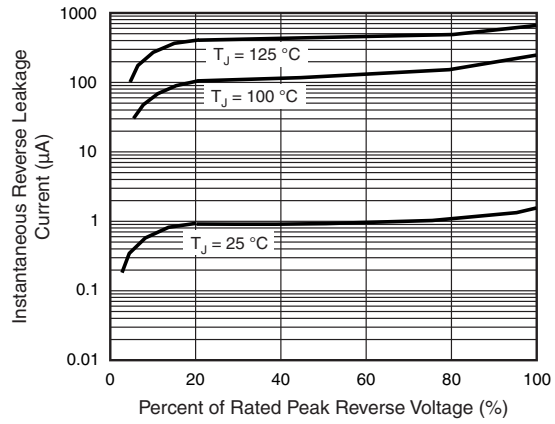


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

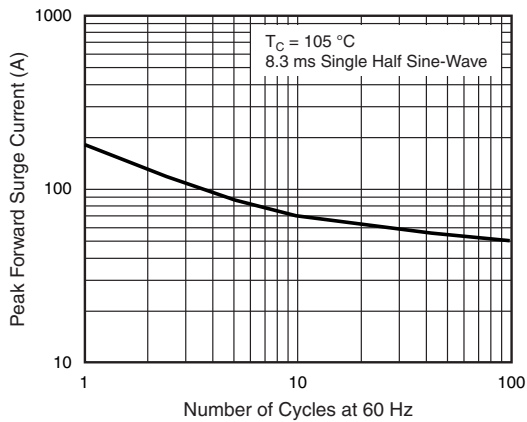


Fig. 2 - Max. Non-Repetitive Peak Forward Surge Current Per Diode

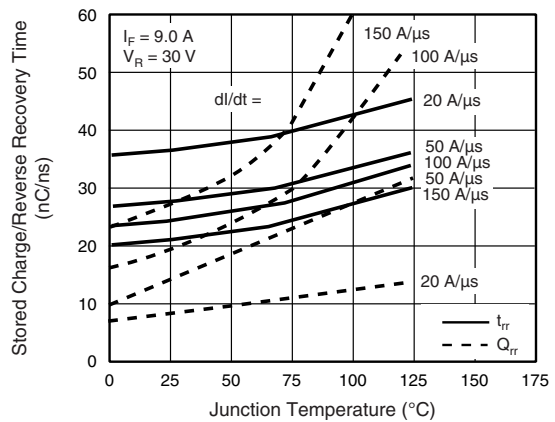


Fig. 5 - Reverse Switching Characteristics Per Diode

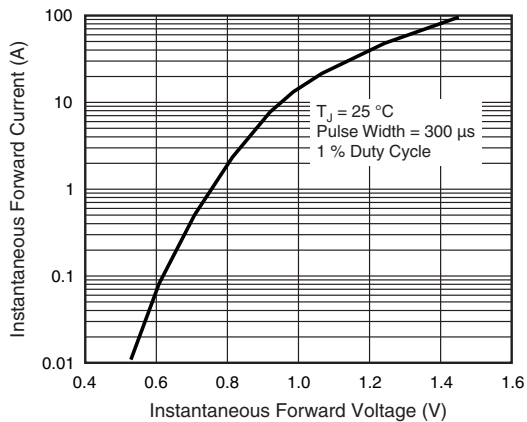


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

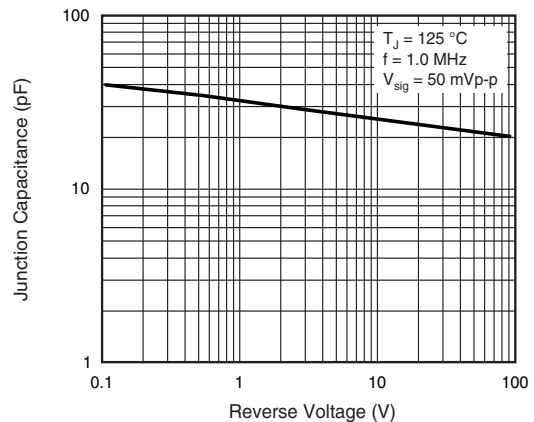
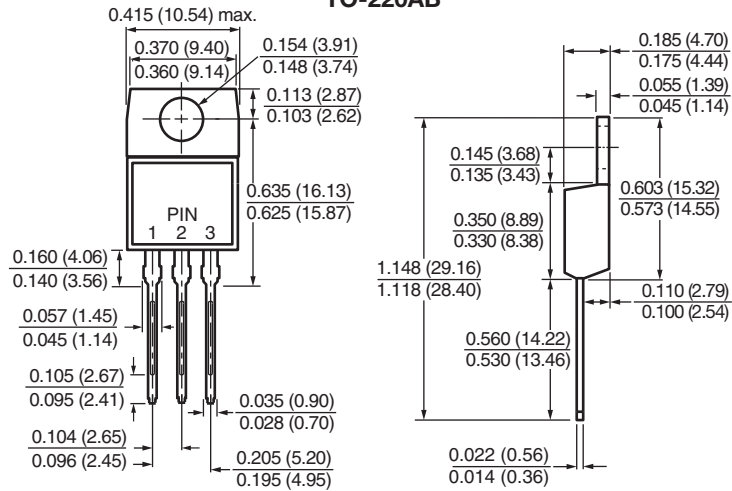


Fig. 6 - Typical Junction Capacitance Per Diode

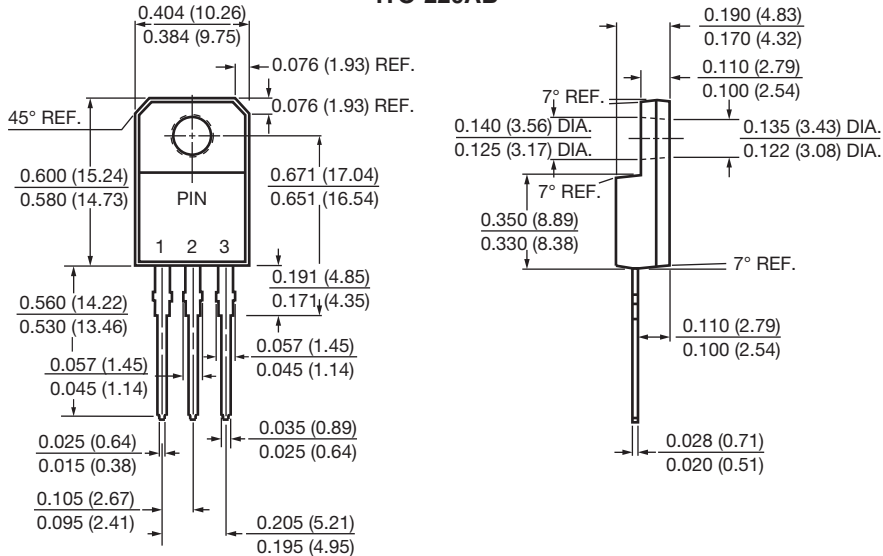


PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

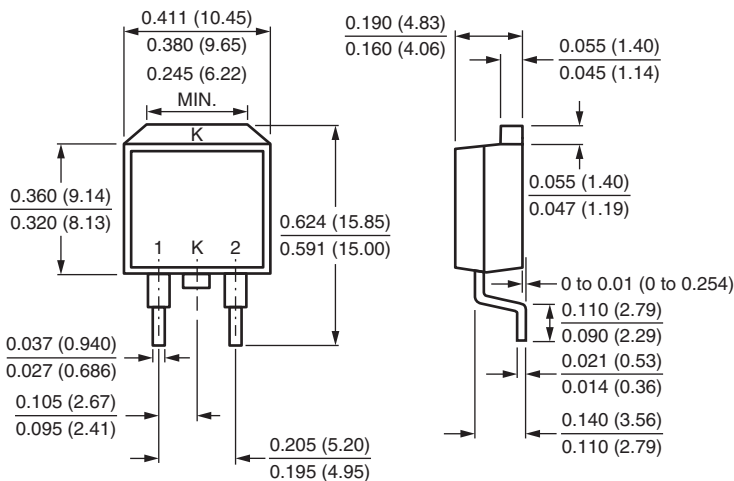
TO-220AB



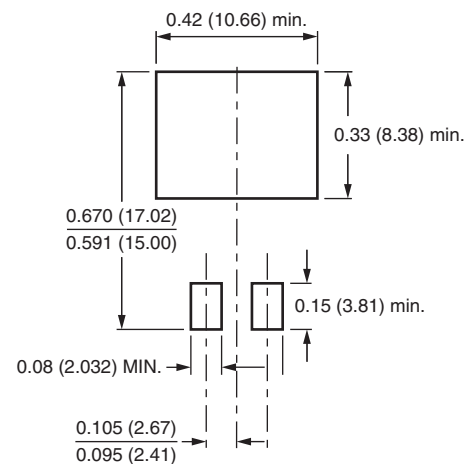
ITO-220AB



D²PAK (TO-263AB)



Mounting Pad Layout





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