ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)						
PARAMETER	**TEST CONDITIONS**		**SYMBOL**	**TYP.**	**MAX.**	**UNIT**
Maximum instantaneous forward voltage (1)	I_F = 5.0 A I_F = 5.0 A	T_J = 25 °C T_J = 125 °C	V_F	0.96 0.77	- -	V
	I_F = 10 A I_F = 10 A	T_J = 25 °C T_J = 125 °C		1.0 0.83	1.2 0.90	
Maximum reverse current (2)	V_R = 300 V	T_J = 25 °C T_J = 125 °C	I_R	0.5 25	5 150	µA
Maximum reverse recovery time	I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A		t_{rr}	20	25	ns
Maximum reverse recovery time	I_F = 1.0 A, dI/dt = 50 A/µs, V_R = 30 V, I_{rr} = 0.1 I_{RM}		t_{rr}	28	35	ns
Typical softness factor (tb/ta)	I_F = 10 A, dI/dt = 200 A/µs, V_R = 200 V, T_J = 125 °C		S	0.36	-	-
Typical reverse recovery current			I_{RM}	7.0	-	ns
Typical stored charge			Q_{rr}	160	-	A
Typical forward recovery time	I_F = 10 A, dI/dt = 80 A/µs, V_{FR} = 1.1 x $V_{F\ max.}$		t_{fr}	150	-	ns

Notes:

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

(2) Pulse test: Pulse width ≤ 40 ms

THERMAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)				
PARAMETER	**SYMBOL**	**UH10FT**	**UHB10FT**	**UNIT**
Typical thermal resistance	$R_{\theta JC}$	2.0	2.0	°C/W

ORDERING INFORMATION (Example)					
PACKAGE	**PREFERRED P/N**	**UNIT WEIGHT (g)**	**PACKAGE CODE**	**BASE QUANTITY**	**DELIVERY MODE**
TO-220AC	UH10FT-E3/4W	1.82	4W	50/tube	Tube
TO-263AB	UHB10FT-E3/4W	1.32	4W	50/tube	Tube
TO-263AB	UHB10FT-E3/8W	1.32	8W	800/reel	Tape and reel

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25 °C unless otherwise noted)

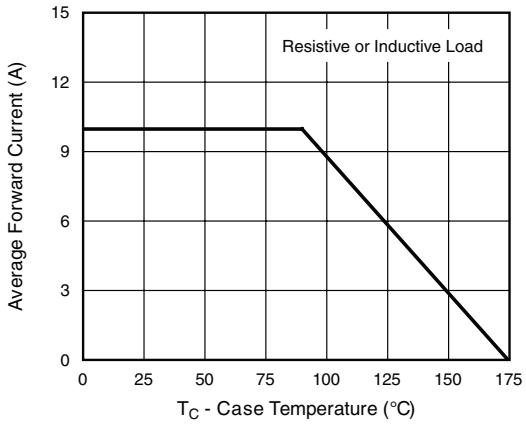


Figure 1. Maximum Forward Current Derating Curve

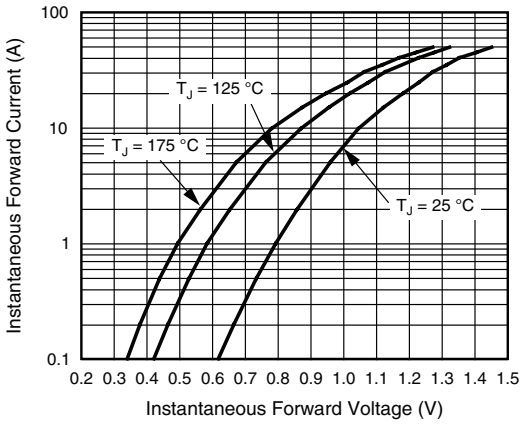


Figure 4. Typical Instantaneous Forward Characteristics

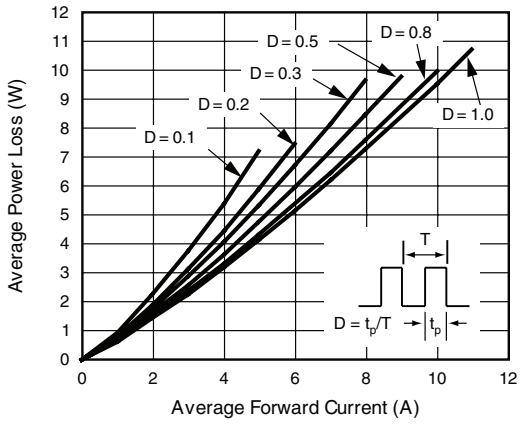


Figure 2. Forward Power Loss Characteristics

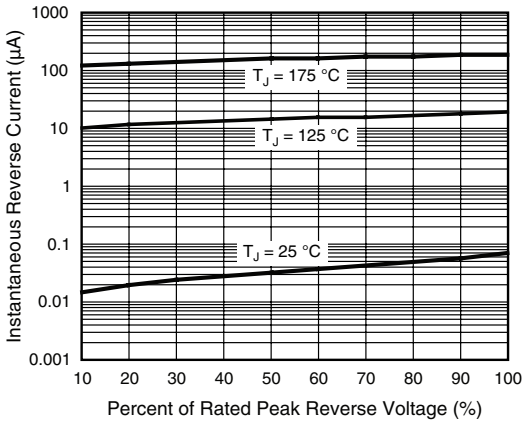


Figure 5. Typical Reverse Leakage Charactersitics

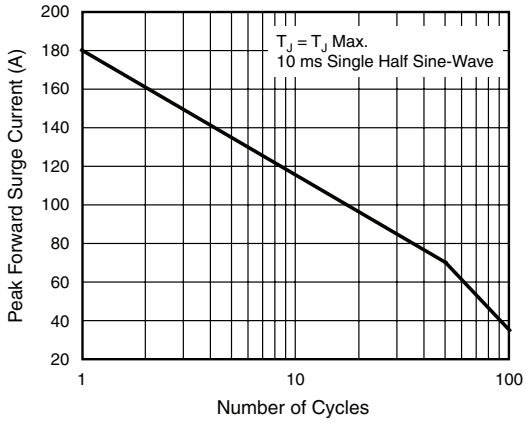


Figure 3. Maximum Non-Repetitive Peak Forward Surge Current

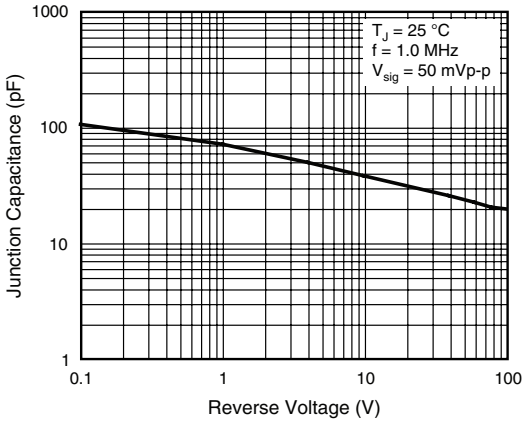
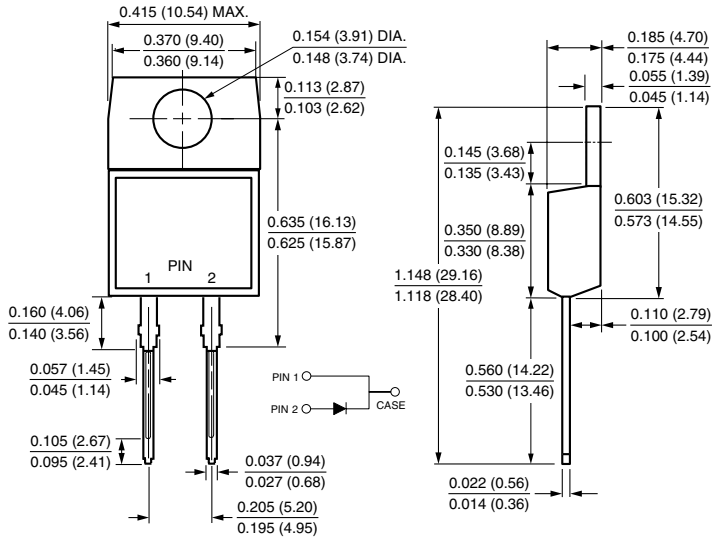


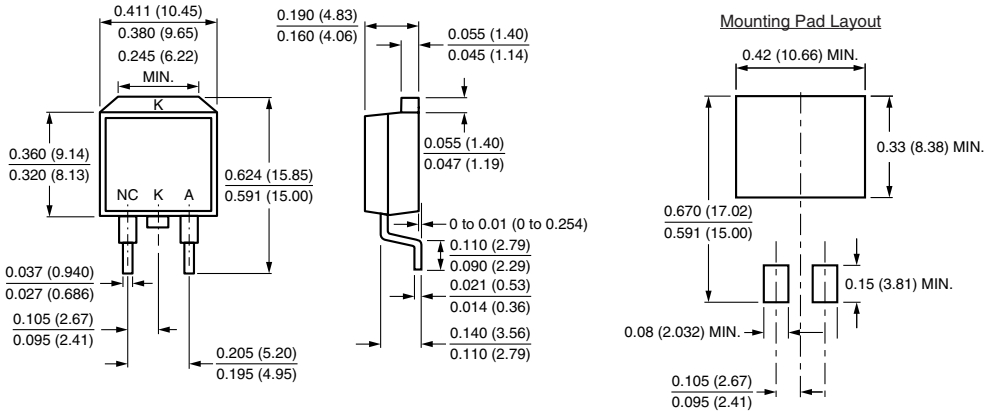
Figure 6. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

TO-220AC



TO-263AB



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