



ELECTRICAL CHARACTERISTICS ($T_C = 25\text{ }^\circ\text{C}$ unless otherwise noted)						
PARAMETER	SYMBOL	TEST CONDITIONS		MBRB2045CT	MBRB2060CT	UNIT
Maximum instantaneous forward voltage per diode	V_F ⁽¹⁾	$I_F = 10\text{ A}$	$T_C = 25\text{ }^\circ\text{C}$	0.65	0.80	V
		$I_F = 10\text{ A}$	$T_C = 125\text{ }^\circ\text{C}$	0.57	0.70	
		$I_F = 20\text{ A}$	$T_C = 25\text{ }^\circ\text{C}$	0.84	0.95	
		$I_F = 20\text{ A}$	$T_C = 125\text{ }^\circ\text{C}$	0.72	0.85	
Maximum reverse current at DC blocking voltage per diode	I_R ⁽²⁾	Rated V_R	$T_C = 25\text{ }^\circ\text{C}$	0.1	0.15	mA
			$T_C = 125\text{ }^\circ\text{C}$	15	150	

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	MBRF	MBRB	UNIT
Typical resistance from junction to case per diode	$R_{\theta JC}$	5.0	2.0	$^\circ\text{C/W}$

ORDERING INFORMATION (Example)					
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
ITO-220AB	MBRF2045CT-E3/45	1.99	45	50/tube	Tube
TO-263AB	MBRB2045CT-E3/45	1.35	45	50/tube	Tube
TO-263AB	MBRB2045CT-E3/81	1.35	81	800/reel	Tape and reel
ITO-220AB	MBRF2045CTHE3_A/P ⁽¹⁾	1.99	P	50/tube	Tube
TO-263AB	MBRB2045CTHE3_B/P ⁽¹⁾	1.35	P	50/tube	Tube
TO-263AB	MBRB2045CTHE3_B/I ⁽¹⁾	1.35	I	800/reel	Tape and reel

Notes

- (1) AEC-Q101 qualified



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

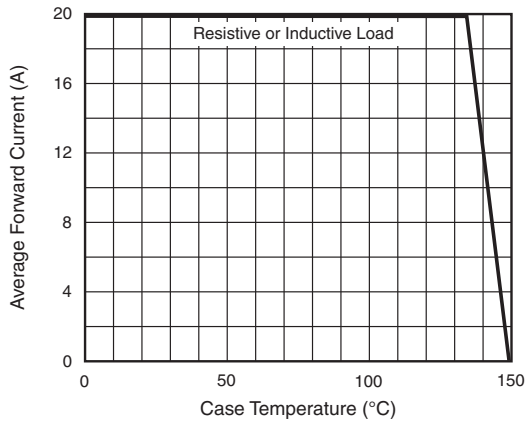


Fig. 1 - Forward Derating Curve (Total)

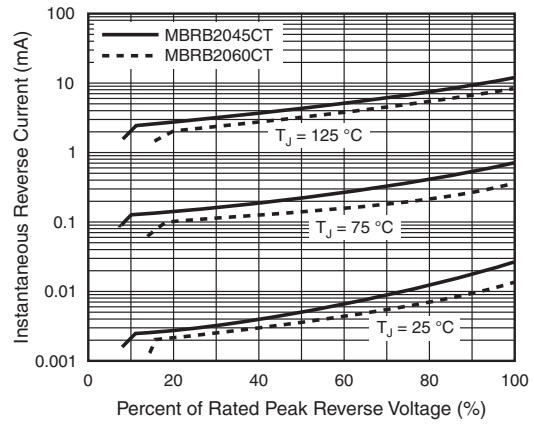


Fig. 4 - Typical Reverse Characteristics Per Diode

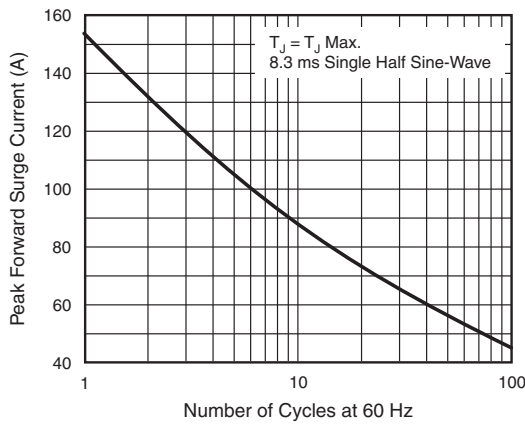


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

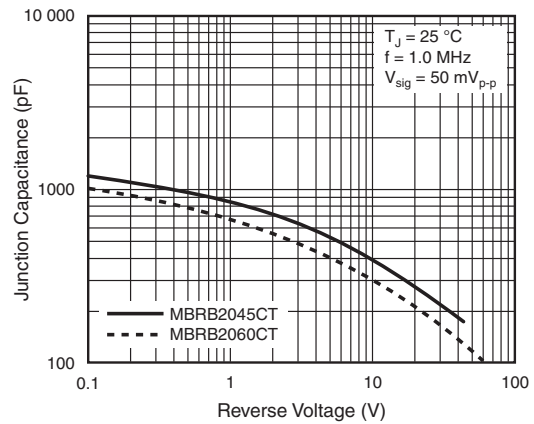


Fig. 5 - Typical Junction Capacitance Per Diode

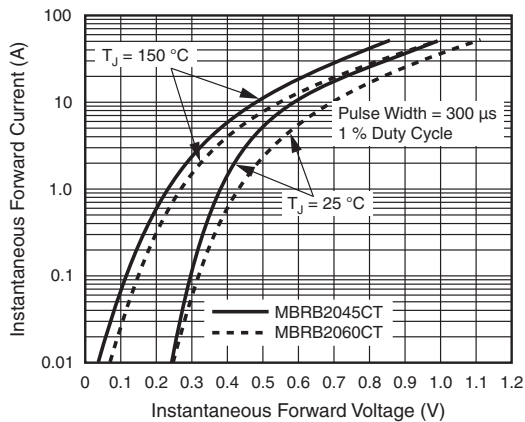


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

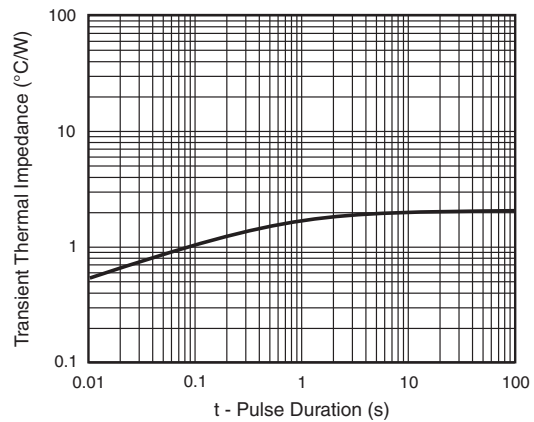
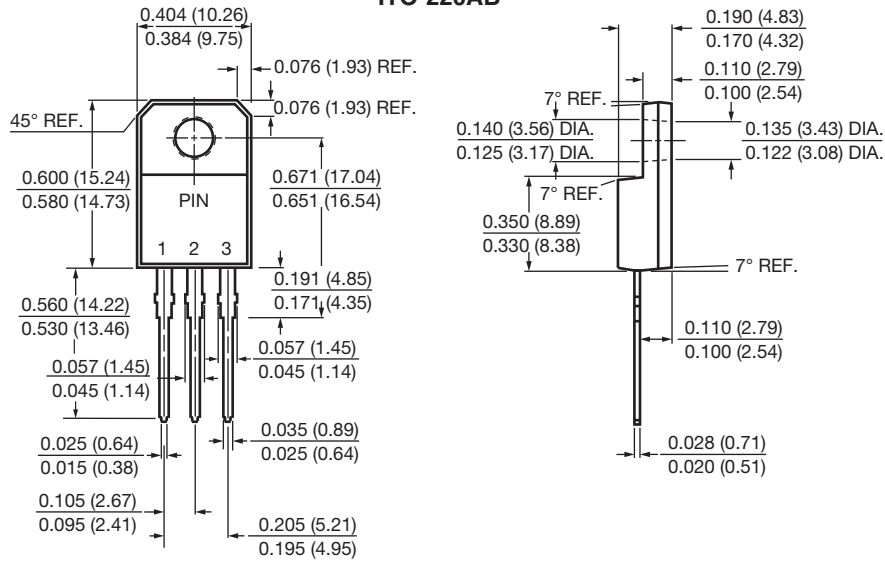


Fig. 6 - Typical Transient Thermal Impedance Per Diode

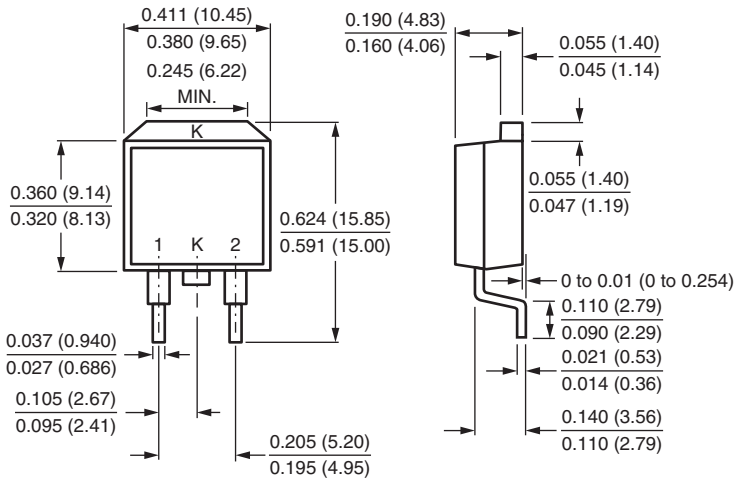


PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

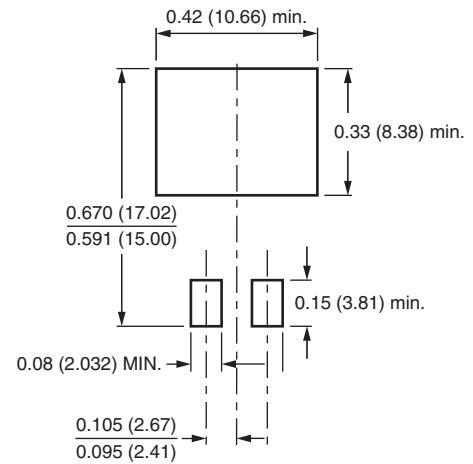
ITO-220AB



D²PAK (TO-263AB)



Mounting Pad Layout





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