



ELECTRICAL CHARACTERISTICS ($T_C = 25\text{ }^\circ\text{C}$ unless otherwise noted)						
PARAMETER	SYMBOL	TEST CONDITIONS		MBR745	MBR760	UNIT
Maximum instantaneous forward voltage	$V_F^{(1)}$	$I_F = 7.5\text{ A}$	$T_C = 25\text{ }^\circ\text{C}$	-	0.75	V
		$I_F = 7.5\text{ A}$	$T_C = 125\text{ }^\circ\text{C}$	0.57	0.65	
		$I_F = 15\text{ A}$	$T_C = 25\text{ }^\circ\text{C}$	0.84	-	
		$I_F = 15\text{ A}$	$T_C = 125\text{ }^\circ\text{C}$	0.72	-	
Maximum reverse current at DC blocking voltage	$I_R^{(2)}$	Rated V_R	$T_C = 25\text{ }^\circ\text{C}$	0.1	0.5	mA
			$T_C = 125\text{ }^\circ\text{C}$	15	50	

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	MBR	MBRF	UNIT
Typical thermal resistance from junction to case	$R_{\theta JC}$	3.0	5.0	$^\circ\text{C/W}$

ORDERING INFORMATION (Example)					
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
TO-220AC	MBR745-E3/45 ⁽¹⁾	1.80	45	50/tube	Tube
ITO-220AC	MBRF745-E3/45	1.94	45	50/tube	Tube

Note

- (1) 60 V device available in TO-220AC package only



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

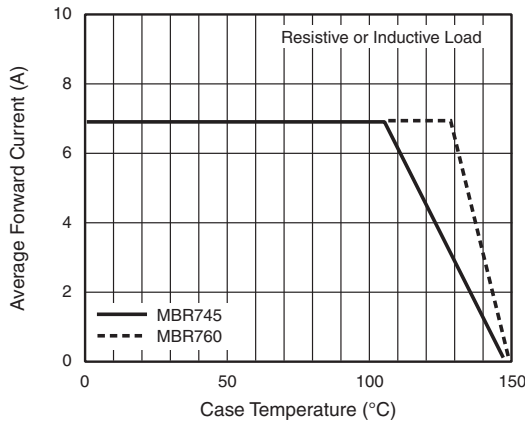


Fig. 1 - Forward Current Derating Curve

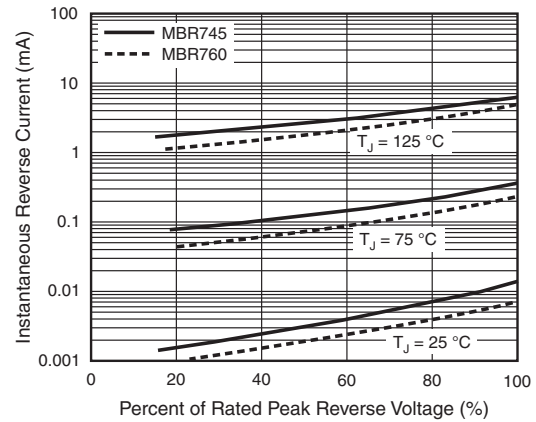


Fig. 4 - Typical Reverse Characteristics

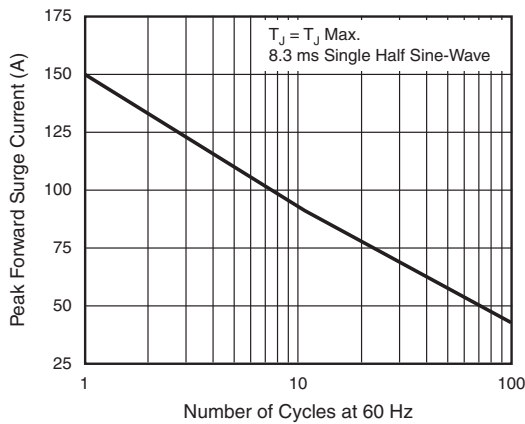


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

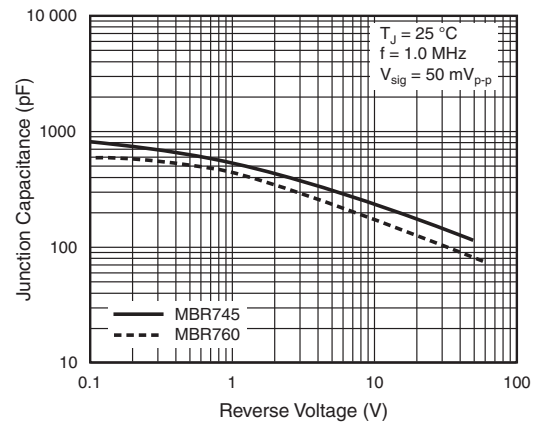


Fig. 5 - Typical Junction Capacitance

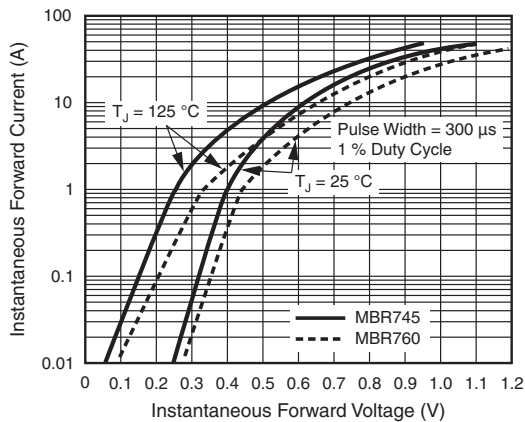


Fig. 3 - Typical Instantaneous Forward Characteristics

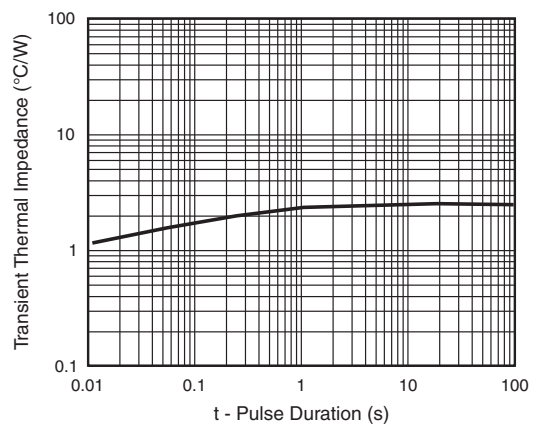
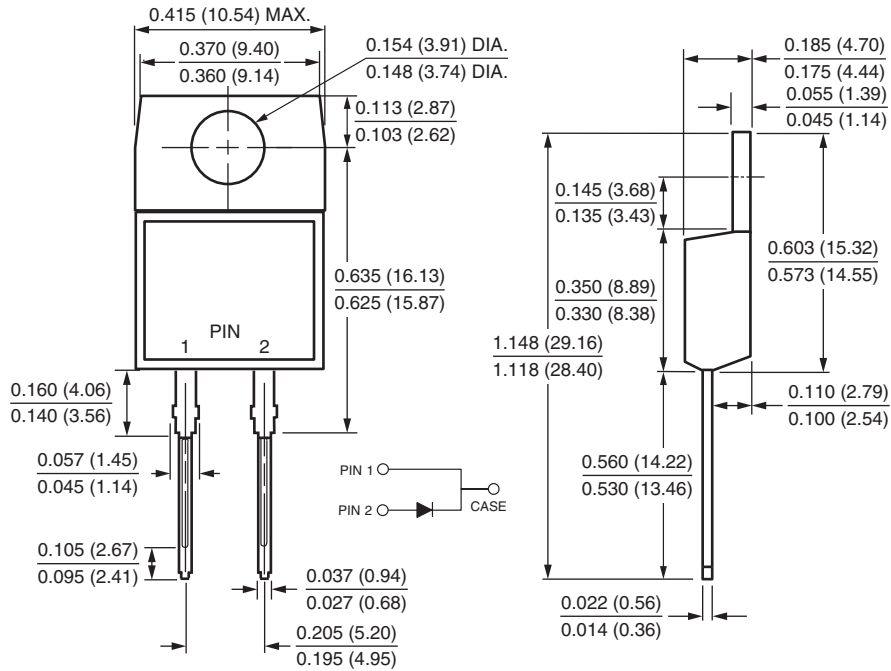


Fig. 6 - Typical Transient Thermal Impedance

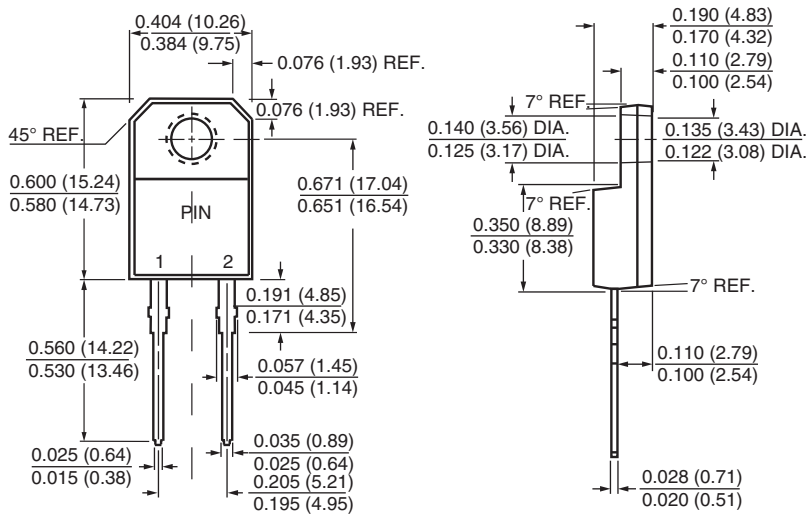


PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

TO-220AC



ITO-220AC





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