



## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		M6035C	M6045C	M6060C		UNIT
				TYP.	MAX.	TYP.	MAX.	
Instantaneous forward voltage per diode	V <sub>F</sub> <sup>(1)</sup>	I <sub>F</sub> = 10 A	T <sub>J</sub> = 25 °C	0.42	-	0.43	-	V
		I <sub>F</sub> = 20 A		0.49	-	0.52	-	
		I <sub>F</sub> = 30 A		0.55	0.61	0.59	0.65	
		I <sub>F</sub> = 10 A	T <sub>J</sub> = 125 °C	0.31	-	0.33	-	
		I <sub>F</sub> = 20 A		0.42	-	0.47	-	
		I <sub>F</sub> = 30 A		0.51	0.56	0.56	0.61	
Reverse current per diode	I <sub>R</sub> <sup>(2)</sup>	V <sub>R</sub>	T <sub>J</sub> = 25 °C	140	700	180	700	μA
			T <sub>J</sub> = 125 °C	106	175	140	175	mA
Typical junction capacitance	C <sub>J</sub>	4.0 V, 1 MHz		1170	-	970	-	pF

### Notes

(1) Pulse test: 300  $\mu\text{s}$  pulse width, 1 % duty cycle

(2) Pulse test: Pulse width  $\leq 40\text{ ms}$

## THERMAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	M6035C	M6045C	M6060C	UNIT
Typical thermal resistance per diode	$R_{\theta JC}$	2.0			$^\circ\text{C/W}$

## ORDERING INFORMATION (Example)

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
M6045C-E3/45	2.068	45	50/tube	Tube

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

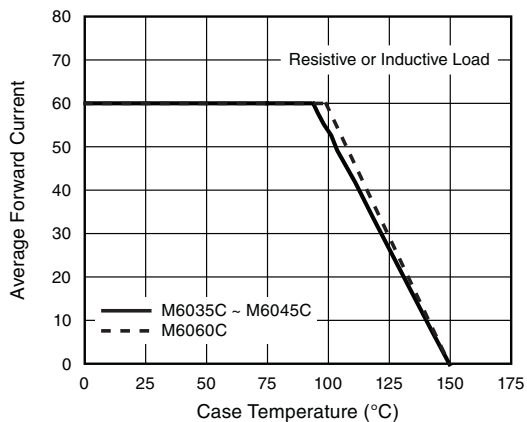


Fig. 1 - Maximum Forward Current Derating Curve

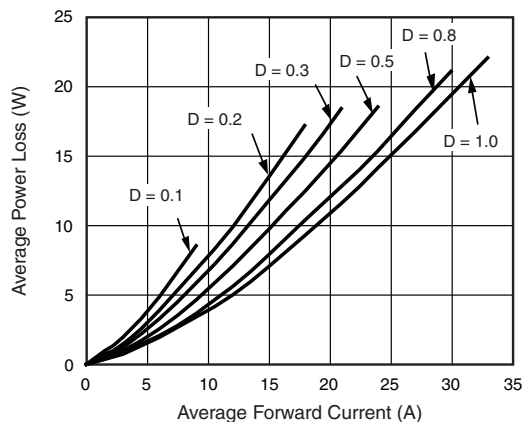


Fig. 2 - Forward Power Loss Characteristics Per Diode

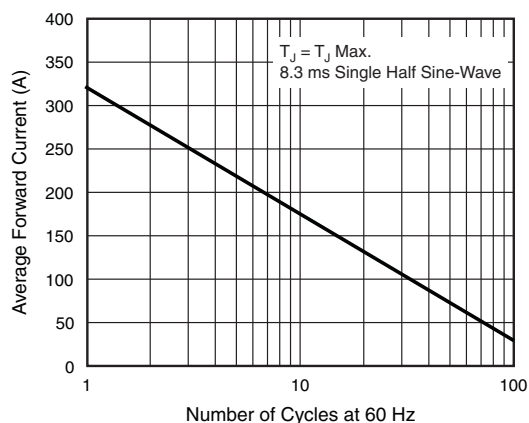


Fig. 3 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

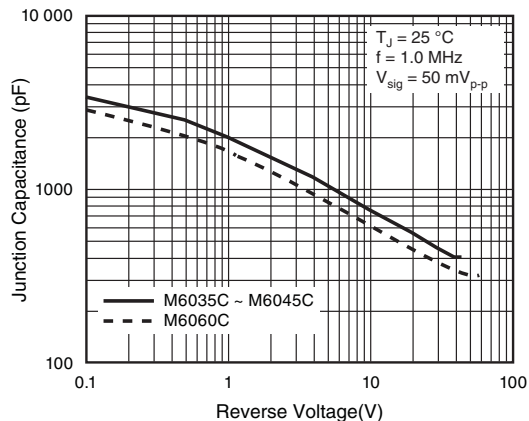


Fig. 6 - Typical Junction Capacitance Per Diode

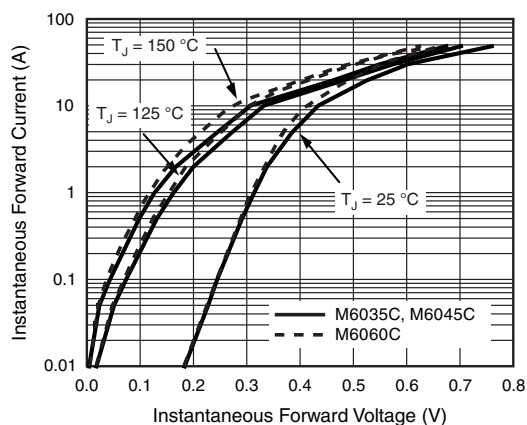


Fig. 4 - Typical Instantaneous Forward Characteristics Per Diode

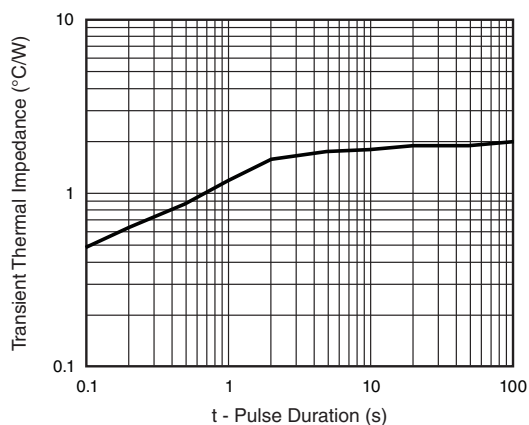


Fig. 7 - Typical Transient Thermal Impedance Per Diode

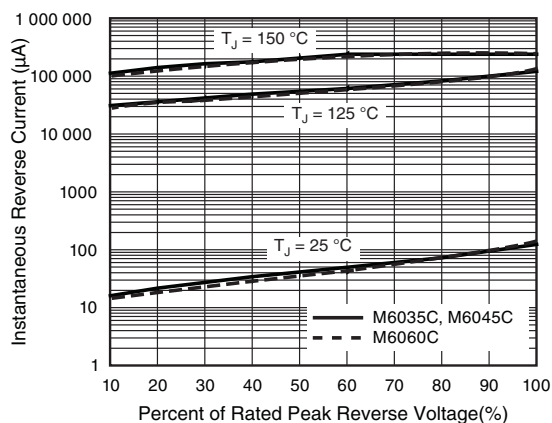
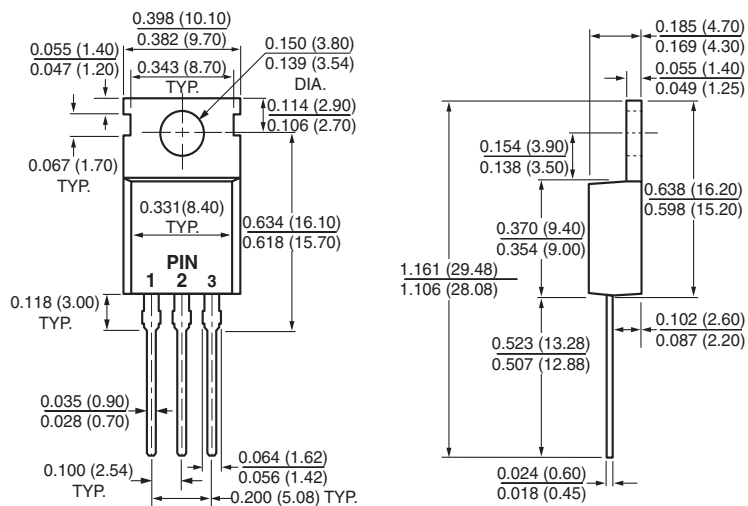


Fig. 5 - Typical Reverse Characteristics Per Diode



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

TO-220AB





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