DIGITRON SEMICONDUCTORS

MBR320-MBR360 — 3A SCHOTTKY RECTIFIER

MAXIMUM RATINGS

Rating	Symbol	MBR					Unit
		320	330	340	350	360	
Peak repetitive reverse voltage **Working peak reverse voltage** **DC blocking voltage**	V_{RRM} V_{RWM} V_R	20	30	40	50	60	V
Average rectified forward current @ T_A = 65°C ($R_{\Theta JA}$ = 28°C/W,PC board mounted)	I_O	3.0					A
Non-repetitive peak surge current @ T_L = 75°C(2) (surge applied at rated load conditions, halfwave, single phase, 60Hz)	I_{FSM}	80					A
Operating and storage junction temperature range	T_J, T_{stg}	-65 to +150					°C
Peak operating junction temperature (forward current applied)	$T_{J(pk)}$	150					°C
Maximum thermal resistance Junction to ambient	$R_{\Theta JA}$	28					°C/W

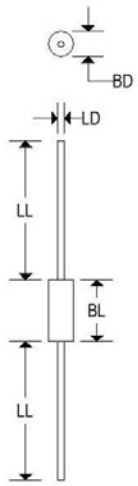
ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Parameter	Symbol	MBR					Unit
		320	330	340	350	360	
Maximum instantaneous forward voltage (1) (I_F = 1.0A) (I_F = 3.0A) (I_F = 9.4A)	V_F		0.500 0.600 0.850		0.600 0.740 1.080		V
Maximum instantaneous reverse current (1) (Rated dc voltage, T_C = 25°C) (Rated dc voltage, T_C = 100°C)	I_R		0.60 20				mA

Note 1: Pulse test: Pulse width = 300μs, duty cycle ≤ 2.0%.
Note 2: Lead temperature reference is cathode lead 1/32" from case.

MECHANICAL CHARACTERISTICS

Case	DO-201A
Marking	Body painted, alpha-numeric
Polarity	Cathode band



	DO-201A			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.190	0.260	4.826	6.604
BL	0.285	0.375	7.240	9.530
LD	0.048	0.052	1.219	1.321
LL	1.000	-	25.400	-

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).
Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

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MBR320, MBR330, MBR340

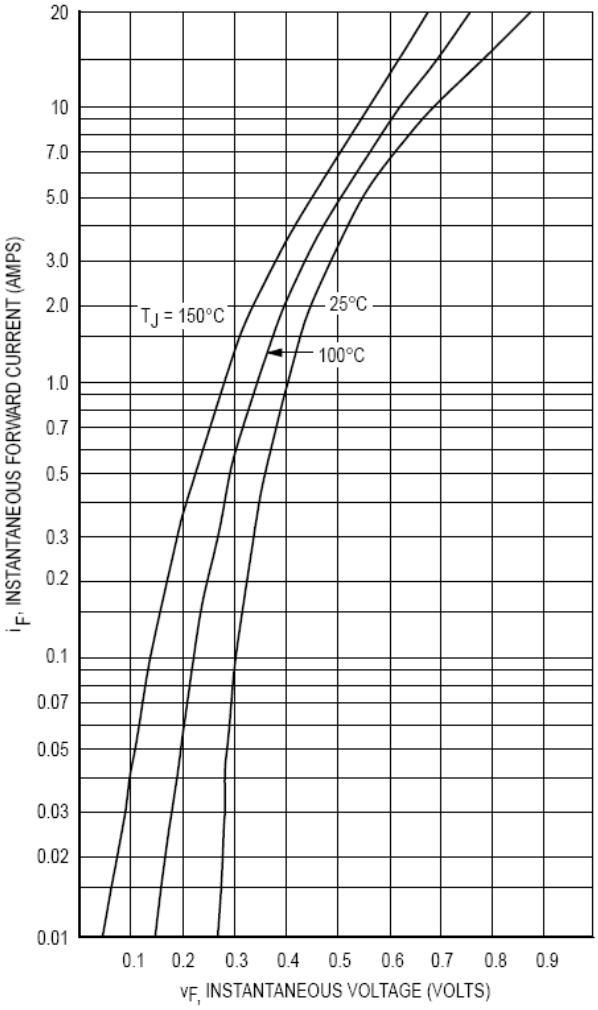

Figure 1. Typical Forward Voltage

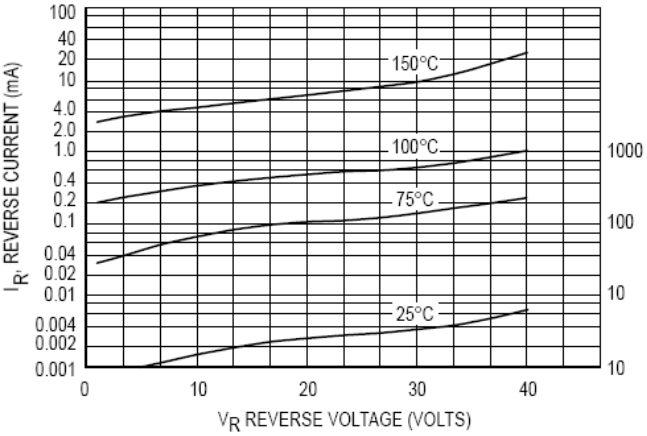

Figure 2. Typical Reverse Current*

*The curves shown are typical for the highest voltage device in the voltage grouping. Typical reverse current for lower voltage selections can be estimated from these same curves if V_R is sufficiently below rated V_R.

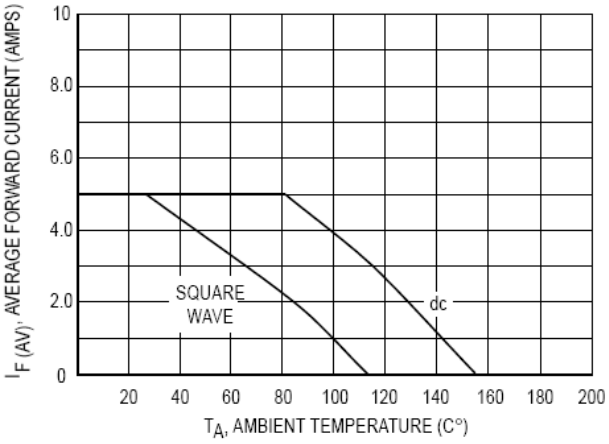

Figure 3. Current Derating (Mounting method #3 per note 1)

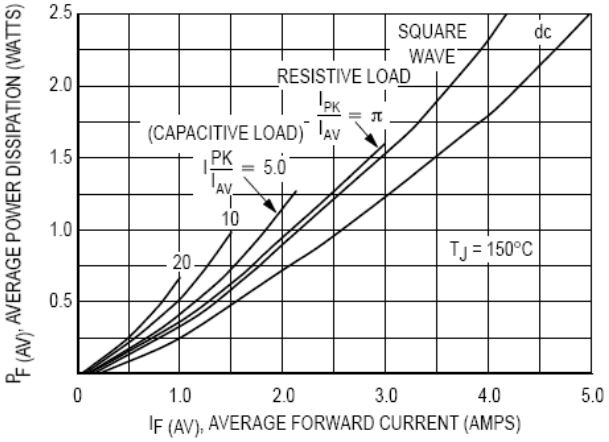

Figure 4. Power Dissipation

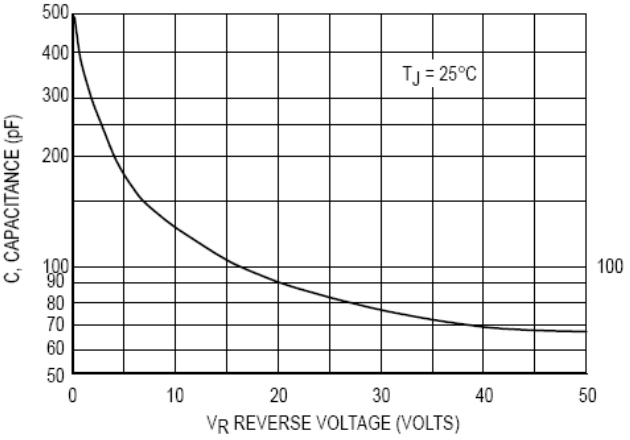

Figure 5. Typical Capacitance

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MBR320-MBR360 **10A SCHOTTKY RECTIFIER**

MBR350 AND MBR360

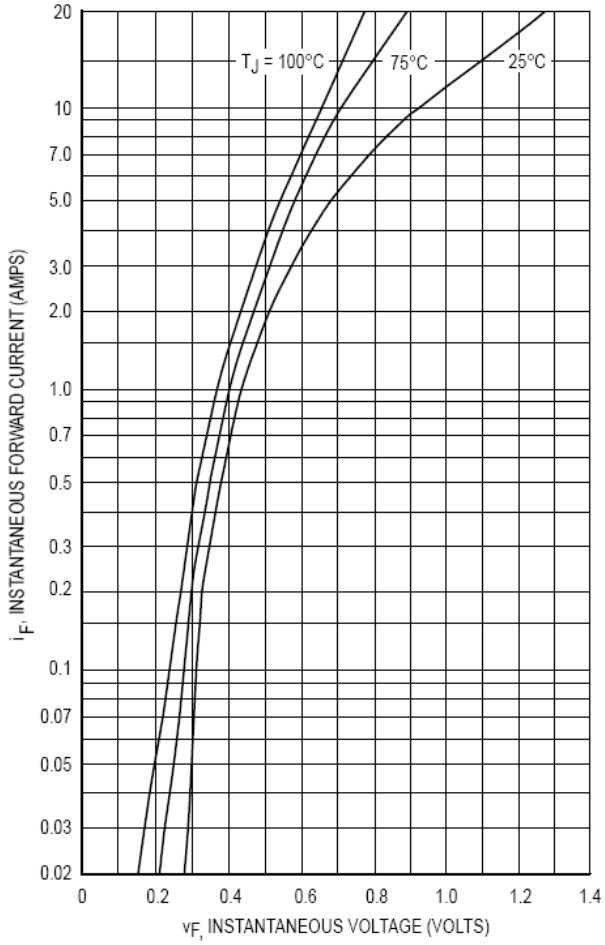

Figure 6. Typical Forward Voltage

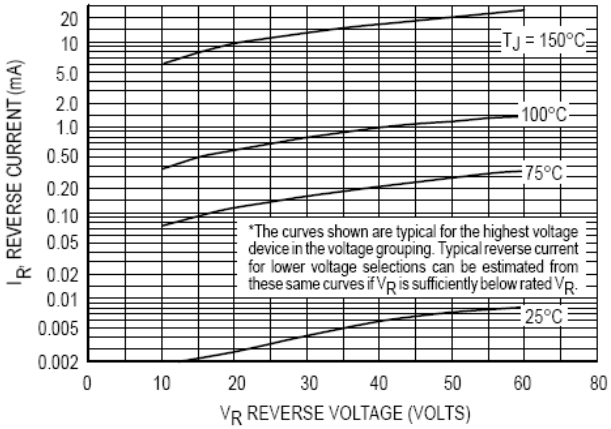

Figure 7. Typical Reverse Current*

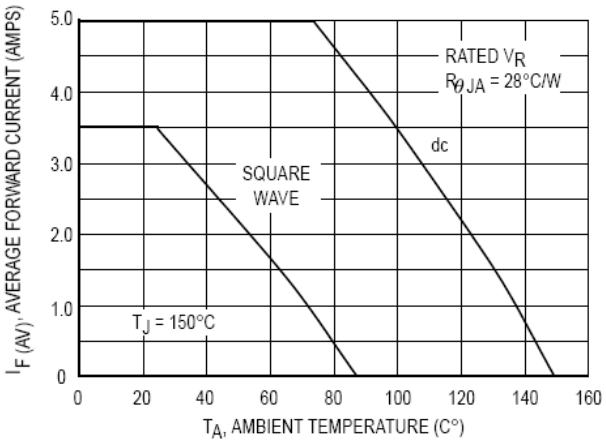

Figure 8. Current Derating Ambient (Mounting method #3 per note 1)

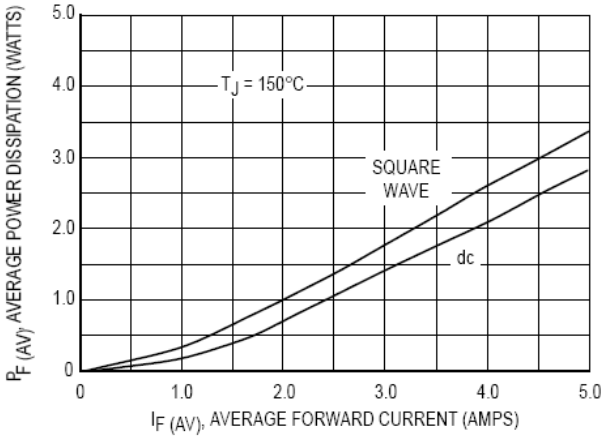

Figure 9. Power Dissipation

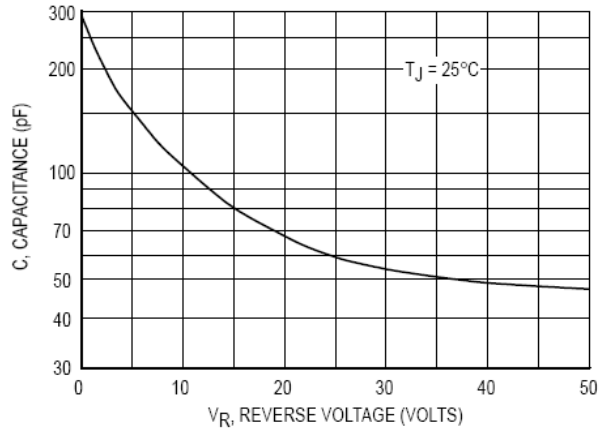

Figure 10. Typical Capacitance

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