DIGITRON SEMICONDUCTORS

1N3889-1N3893 FAST RECOVERY RECTIIFER

MAXIMUM RATINGS

Parameter	Symbol	1N3889	1N3890	1N3891	1N3892	1N3893
Working peak reverse voltage	V_{RWM}	50V	100V	200V	300V	400V
Peak repetitive reverse voltage	V_{RRM}	50V	100V	200V	300V	400V
Operating temperature range	T_J	-65 to +150°C				
Storage temperature range	T_{stg}	-65 to +175°C				
Maximum thermal resistance	$R_{\theta JC}$	2.0°C/W junction to case				
Mounting torque		12-15 inch pounds				
Weight		.16 ounces (5.0 grams) typical				

Add "R" to part numbers for reverse polarity.

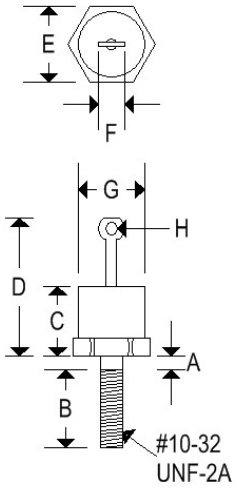
ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Test Condition
Average forward current	$I_{F(AV)}$	12 Amps	T_C = 100°C, square wave, $R_{\theta JC}$ = 2.0°C/W
Maximum surge current	I_{FSM}	175 Amps	8.3ms, half-sine, T_C = 100°C
Maximum peak forward voltage	V_{FM}	1.50 Volts	I_{FM} = 38A: T_J = 25°C*
Maximum peak reverse current	I_{RM}	10 µA	V_{RRM}, T_J = 25°C
Maximum peak reverse current	I_{RM}	2.0 mA	V_{RRM}, T_J = 150°C
Maximum reverse recovery time	t_{RR}	200nS	I_F = 1A dc, V_R = 30V, di/dt = 25A/µs, T_C = 55°C
Typical junction capacitance	C_J	115pF	V_R = 10V, f = 1MHz, T_J = 25°C

- Pulse test: pulse width 300µsec. Duty cycle 2%

MECHANICAL CHARACTERISTICS

Case	DO-4(R)
Marking	Alpha-numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-4(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
A	-	0.078	-	1.981
B	0.422	0.453	10.719	11.506
C	-	0.405	-	10.287
D	-	0.800	-	20.320
E	0.420	0.440	10.668	11.176
F	-	0.250	-	6.350
G	-	0.424	-	10.770
H	0.066	-	1.676	-

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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Rev. 20121127

DIGITRON SEMICONDUCTORS

1N3879-1N3883 **FAST RECOVERY RECTIFER**

Figure 1
Typical Forward Characteristics

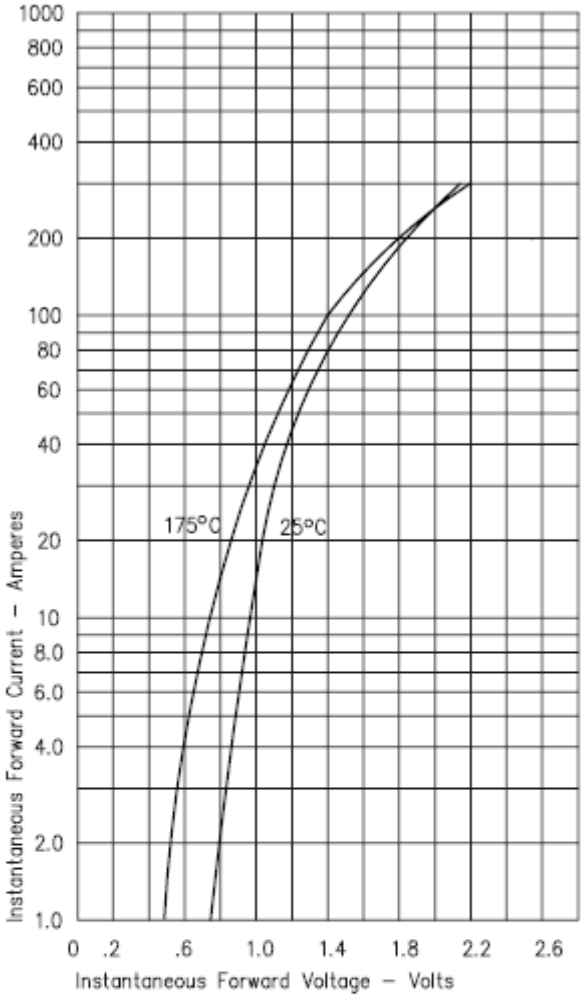


Figure 3
Typical Junction Capacitance

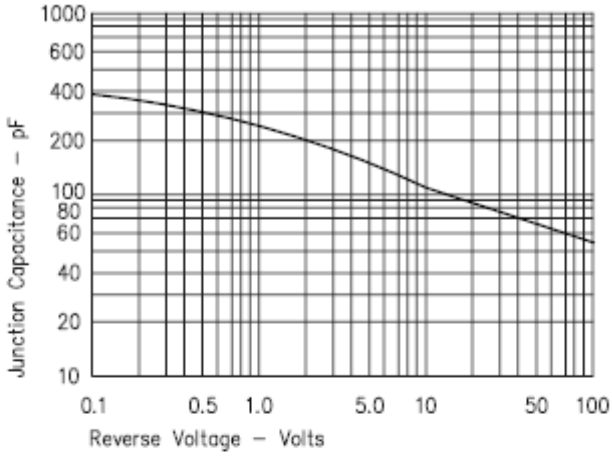


Figure 4
Forward Current Derating

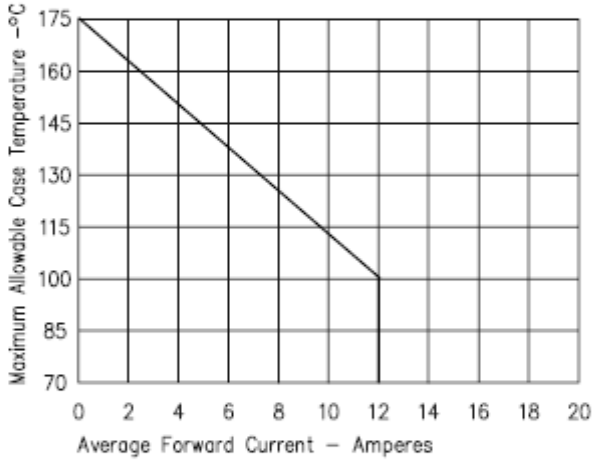
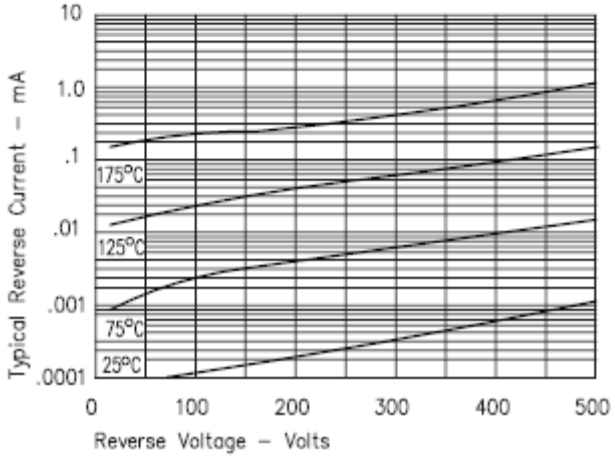


Figure 2
Typical Reverse Characteristics



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