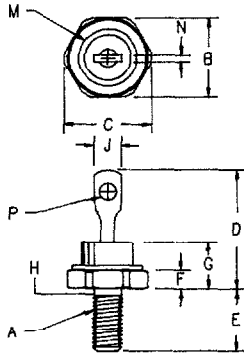


# Military Schottky Rectifier 1N6391



Notes:  
 1. 10-32 UNF3A threads  
 2. Full threads within 2 1/2 threads Standard Polarity: Stud is Cathode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1
B	.424	.437	10.77	11.10	
C	---	.505	---	12.82	
D	.600	.800	15.24	20.32	
E	.422	.453	10.72	11.50	
F	.075	.175	1.91	4.44	
G	---	.405	---	---	
H	.163	.189	4.15	4.80	2
J	---	.310	---	7.87	
M	---	.350	---	8.89	Dia.
N	.020	.065	.510	1.95	
P	.070	.100	1.78	2.54	Dia.

## D0203AA (D04)

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
1N6391	45V	45V

- Schottky Barrier Rectifier
- Available in JAN, JANTX, JANTXV
- Mil S-19500/553
- Low Forward Voltage
- 600 Amps surge rating
- Reverse Energy Tested

### Electrical Characteristics

Average forward current	$I_F(AV)$ 25 Amps	$T_C = 136^\circ C$ , Square wave, $R_{\theta JC} = 2.0^\circ C/W$
Maximum surge current	$I_{FSM}$ 600 Amps	8.3 ms, half sine, $T_J = 175^\circ C$
Max repetitive peak reverse current	$I_R(OV)$ 2 Amps	$f = 1$ KHz, $25^\circ C$ , 1 usec Square wave
Max peak forward voltage	$V_{FM}$ .48 Volts	$I_{FM} = 5A$ ; $T_J = 25^\circ C^*$
Max peak forward voltage	$V_{FM}$ .68 Volts	$I_{FM} = 50A$ ; $T_J = 25^\circ C^*$
Max peak reverse current	$I_{RM}$ 15 mA	$V_{RRM}$ , $T_J = 25^\circ C$
Max peak reverse current	$I_{RM}$ 40 mA	$V_{RRM}$ , $T_J = 125^\circ C^*$
Max peak reverse current	$I_{RM}$ 400 mA	$V_{RRM}$ , $T_J = 175^\circ C^*$
Maximum junction capacitance	$C_J$ 2000 pF	$V_R = 5.0V$ , $T_J = 25^\circ C$

\*Pulse test: Pulse width 300  $\mu$ sec, Duty cycle 2%

### Thermal and Mechanical Characteristics

Storage temp range	$T_{STG}$	$-55^\circ C$ to $175^\circ C$
Operating junction temp range	$T_J$	$-55^\circ C$ to $175^\circ C$
Max thermal resistance	$R_{\theta JC}$	$2.0^\circ C/W$ Junction to case
Typical thermal resistance	$R_{\theta JC}$	$1.1^\circ C/W$ Junction to case
Max mounting torque		15 inch pounds maximum
Weight		.16 ounces (5.0 grams) typical

**Microsemi Corp.**  
**Colorado**

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C-89

# 1N6391

Figure 1  
Typical Forward Characteristics

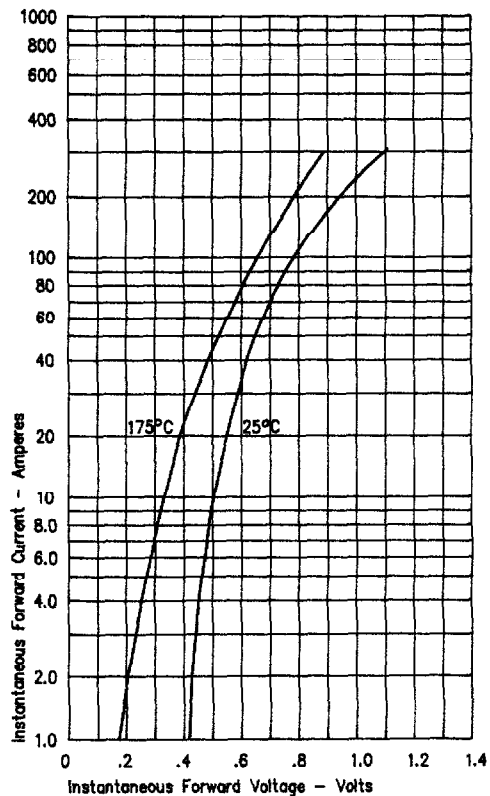


Figure 3  
Typical Junction Capacitance

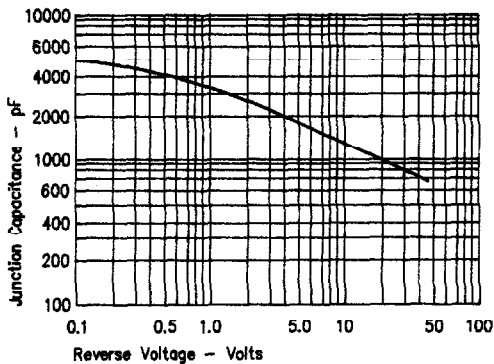


Figure 4  
Forward Current Derating

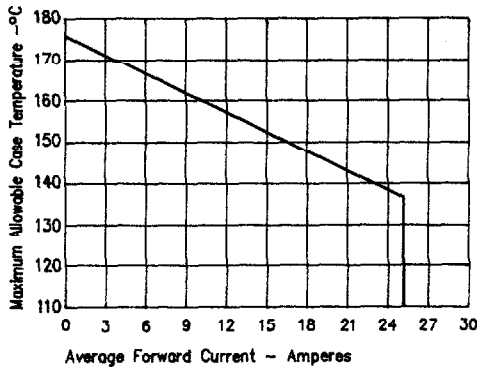


Figure 2  
Typical Reverse Characteristics

