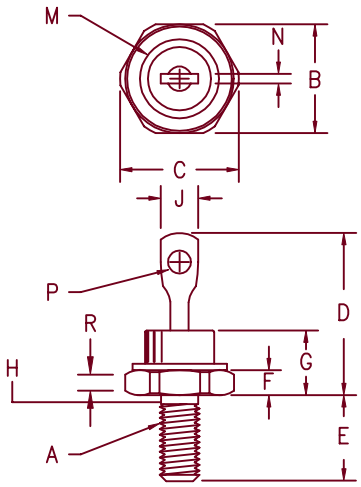
Military Schottky Rectifier

1N6391



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

Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	---	---	---	---	1
B	.424	.437	10.77	11.10	
C	---	.505	---	12.82	
D	.600	.800	15.22	20.32	
E	.422	.453	10.72	11.50	
F	.075	.175	1.91	4.44	
G	.300	.405	7.62	10.28	
H	.163	.189	4.14	4.80	2
J	---	.250	---	6.35	
M	---	.350	---	8.89	Dia.
N	.018	.065	.460	1.65	
P	.060	.103	1.52	2.62	Dia.
R	.060	---	1.53	---	

DO203AA (DO4)

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

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

Electrical Characteristics

Average forward current	$I_{F(AV)}$	25 Amps	T_C = 125°C, Square wave, $R_{\theta JC}$ = 2.0°C/W
Maximum surge current	I_{FSM}	600 Amps	8.3 ms, half sine, T_J = 175°C
Max reverse energy	$I_{R(OV)}$	2 Amps	L = 260µH, ≤ 1% Duty Cycle
Max peak forward voltage	V_{FM}	.50 Volts	I_{FM} = 5A: T_J = 25°C*
Max peak forward voltage	V_{FM}	.68 Volts	I_{FM} = 50A: T_J = 25°C*
Max peak reverse current	I_{RM}	15 mA	V_{RRM}, T_J = 25°C
Max peak reverse current	I_{RM}	40 mA	V_{RRM}, T_J = 125°C*
Max peak reverse current	I_{RM}	400 mA	V_{RRM}, T_J = 175°C*
Maximum junction capacitance	C_J	2000 pF	V_R = 5.0V, T_J = 25°C

*Pulse test: Pulse width 300 µsec, Duty cycle 2%

Thermal and Mechanical Characteristics

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

COLORADO Microsemi
800 Hoyt Street
Broomfield, CO. 80020
PH: (303) 469–2161
FAX: (303) 466–3775
www.microsemi.com

3–7–00 Rev. 3

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Figure 1
Typical Forward Characteristics

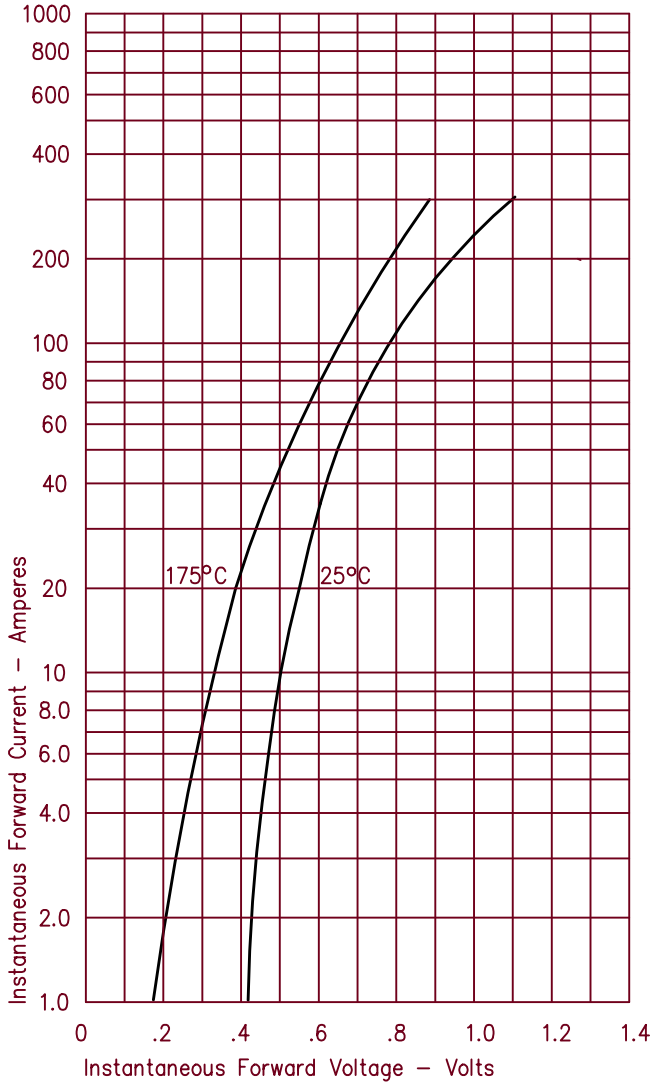

Figure 2
Typical Reverse Characteristics

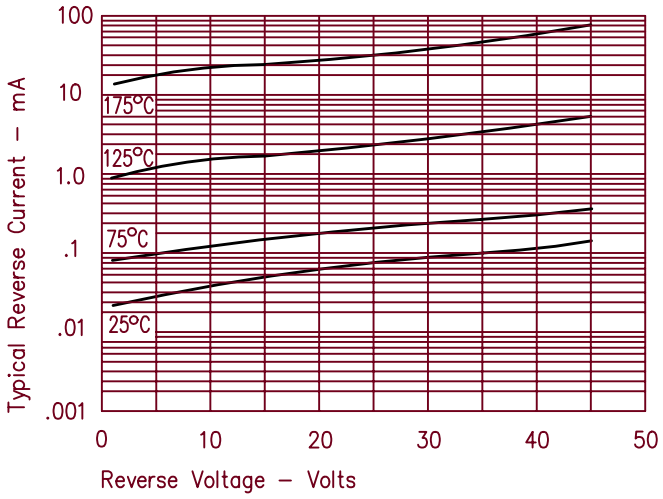

Figure 3
Typical Junction Capacitance

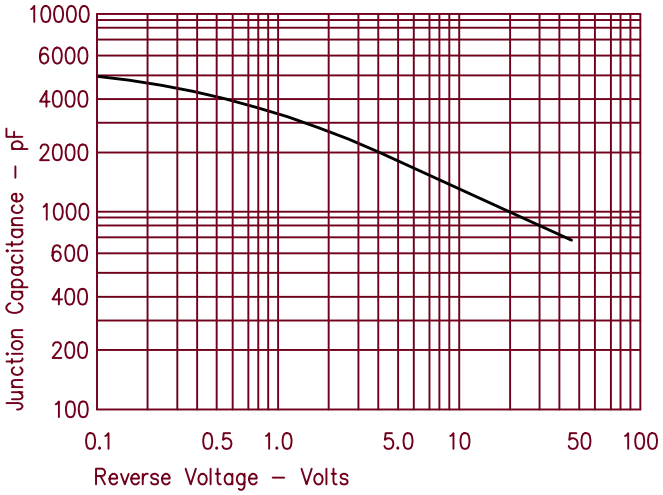

Figure 4
Forward Current Derating