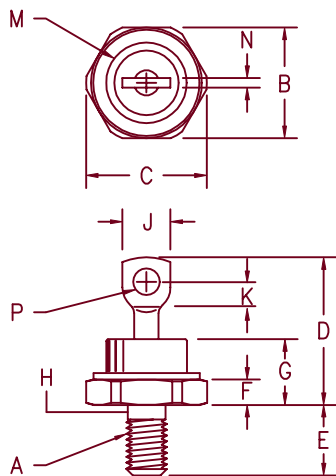


Military Ultra Fast Rectifier

1N6304 — 1N6306

[查询"1N6305R"供应商](#)



Notes:

- 1/4-28UNF3A threads
- Full threads within 2 1/2 threads
- For Reverse Polarity add R to Part Number
Standard Polarity: Stud is Cathode
Reverse Polarity: Stud is Anode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1
B	.669	.688	16.99	17.48	
C	---	.793	---	20.14	
D	.750	1.00	19.05	25.40	
E	.422	.453	10.72	11.51	
F	.115	.200	2.92	5.08	
G	---	.450	---	11.43	
H	.220	.249	5.59	6.32	2
J	---	.375	---	9.53	
K	.156	---	3.97	---	
M	---	.667	---	16.94	Dia
N	---	.080	---	2.03	
P	.140	.175	3.56	4.45	Dia

D0203AB (D05)

Microsemi Catalog Number	Working Peak Reverse Voltage	Peak Reverse Voltage
1N6304*	50V	50V
1N6305*	100V	100V
1N6306*	150V	150V

*Add Suffix R For Reverse Polarity

- Available in JAN, JANTX, JANTXV
- Mil-PRF-19500/550
- Ultra Fast Recovery Rectifier
- 70 Amps current rating
- 800 Amps surge rating
- VRRM 50 to 150 Volts

Electrical Characteristics

Average forward current	I _{F(AV)} 70 Amps	T _C = 100°C, Square wave, R _{θJC} = 0.8°C/W
Maximum surge current	I _{FSM} 800 Amps	8.3 ms, half sine T _C = 55°C
Max peak forward voltage	V _{FM} .975 Volts	I _{FM} = 70A: T _J = 25°C*
Max peak forward voltage	V _{FM} 1.18 Volts	I _{FM} = 150A: T _J = 25°C*
Max peak forward voltage	V _{FM} .84 Volts	I _{FM} = 70A: T _J = 150°C*
Max peak reverse current	I _{RM} 30 mA	V _R = 10V, T _J = 150°C*
Max peak reverse current	I _{RM} 25 μA	V _R = 10V, T _J = 25°C
Max reverse recovery time	t _{RR} 50 ns	I _F = .5A, I _R = 1A, I(REC) = .25A, di/dt = 85A/μs
Max reverse recovery time	t _{RR} 60 ns	70A, 130A/μs, T _J = 25°C
Max junction capacitance	C _J 600 pF	V _R = 10V, f = 1Mhz, T _J = 25°C

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

Thermal and Mechanical Characteristics

Storage temp range	T _{STG}	-65°C to 175°C
Operating junction temp range	T _J	-65°C to 175°C
Max thermal resistance	R _{θJC}	0.8°C/W Junction to case
Mounting torque		30 inch pounds maximum
Weight		.54 ounces (15.3 grams) typical

8-25-00 Rev. 2

1N6304 — 1N6306

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Figure 1
Typical Forward Characteristics

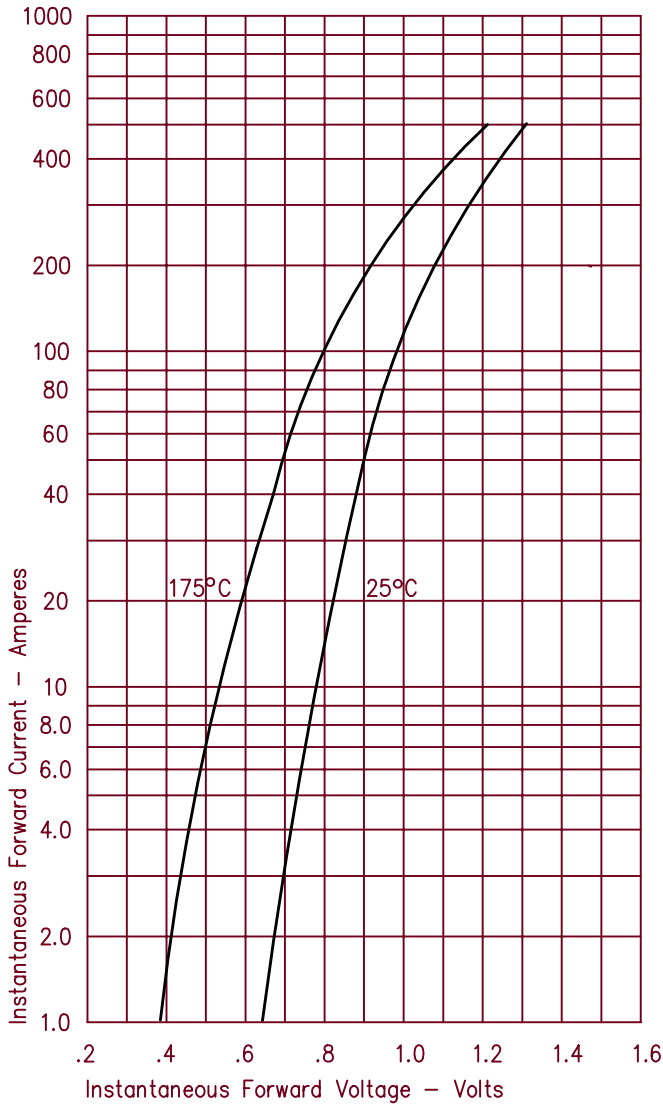


Figure 3
Typical Junction Capacitance

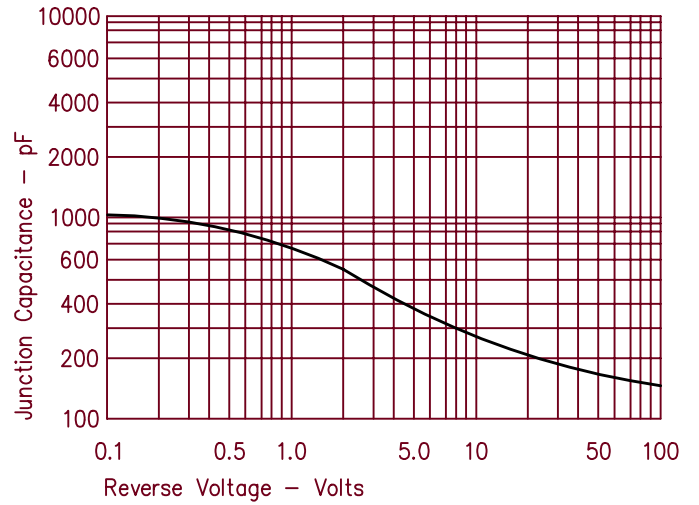


Figure 4
Forward Current Derating

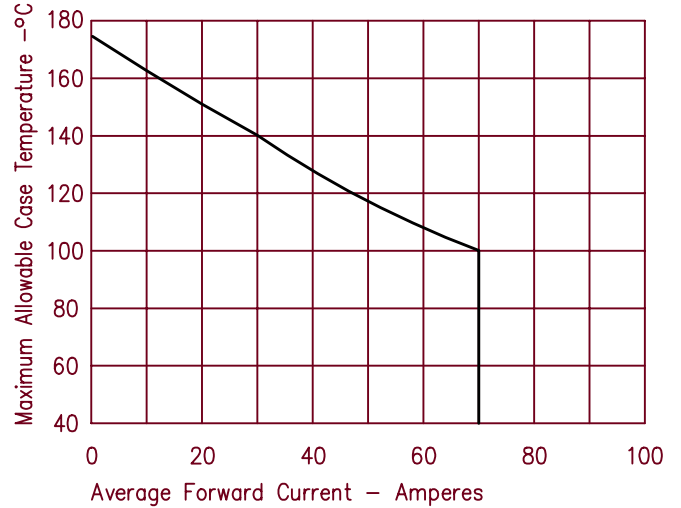


Figure 2
Typical Reverse Characteristics

