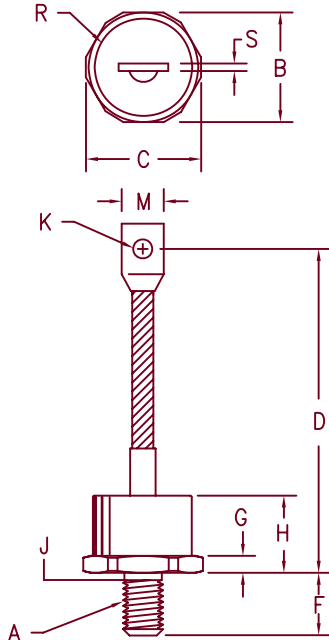


# Silicon Power Rectifier

## 1N4044-1N4056



### Notes:

1. Full threads within 2-1/2 threads
2. Standard polarity: Stud is Cathode  
Reverse polarity: Stud is Anode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A		3/4-16	UNF		1
B	1.218	1.250	30.94	31.75	
C	1.350	1.375	34.29	34.93	
D	5.300	5.900	134.62	149.86	
F	.793	.828	20.14	21.03	
G	.300	.325	7.62	8.25	
H	---	.900	---	22.86	
J	.660	.749	16.76	19.02	2
K	.338	.348	8.59	8.84	Dia
M	.665	.755	16.89	19.18	
R	---	1.100	---	27.94	Dia
S	.050	.120	1.27	3.05	

D0205AB (DO-9)

Other JEDEC Types					Peak Reverse Voltage	
1N4044	1N1660	1N1670	1N2054	1N3260	1N3735	50V
1N4045	1N1661	1N1671	1N2055	1N3261		100V
1N4046	1N1662	1N1672	1N2056	1N3262		150V
1N4047	1N1663	1N1673	1N2057	1N3263	1N3736	200V
1N4048			1N2058	1N3264		250V
1N4049	1N1664	1N1674	1N2059	1N3265	1N3737	300V
			1N2060	1N3266		350V
1N4050	1N1665	1N1675	1N2061	1N3267	1N3738	400V
			1N2062			450V
1N4051	1N1666	1N1676	1N2063	1N3268	1N3739	500V
1N4052			1N2064	1N3269	1N3740	600V
1N4053			1N2065	1N3270		700V
1N4054			1N2066	1N3271	1N3741	800V
1N4055			1N2067	1N3272		900V
1N4056			1N2068	1N3273	1N3742	1000V
				1N3274	1N3743	1200V
					1N3744	1400V

Add R suffix for reverse polarity. Add IL for insulated lead

- Glass to metal seal construction
- High surge current capability
- Soft recovery
- Glass passivated die
- VRRM 50 to 1400 Volts

### Electrical Characteristics

Average forward current	IF(AV) 275 Amps	TC = 120°C, square wave, RθJC = 0.18°C/W
Maximum surge current	IFSM 5000 Amps	8.3ms, half sine, TJ = 190°C
Max I <sup>2</sup> t for fusing	I <sup>2</sup> t 104125 A <sup>2</sup> s	8.3ms
Max peak forward voltage	VFM 1.3 Volts	IFM = 300A: TJ = 25°C*
Max peak reverse current	IRM 10 mA	VRRM, TJ = 150°C
Max reverse current	IRM 75 uA	VRRM, TJ = 25°C

\*Pulse test: Pulse width 300 μsec. Duty cycle 2%

### Thermal and Mechanical Characteristics

Storage temperature range	TSTG	-65°C to 190°C
Operating junction temp range	TJ	-65°C to 190°C
Maximum thermal resistance	RθJC	0.18°C/W junction to case
Typical Thermal Resistance (greased)	RθCS	.08°C/W case to sink
Mounting torque		300-325 inch pounds
Weight		8.5 ounces (240 grams) typical



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05-01-07 Rev. 3

# 1N4044-1N4056

Figure 1  
Typical Forward Characteristics

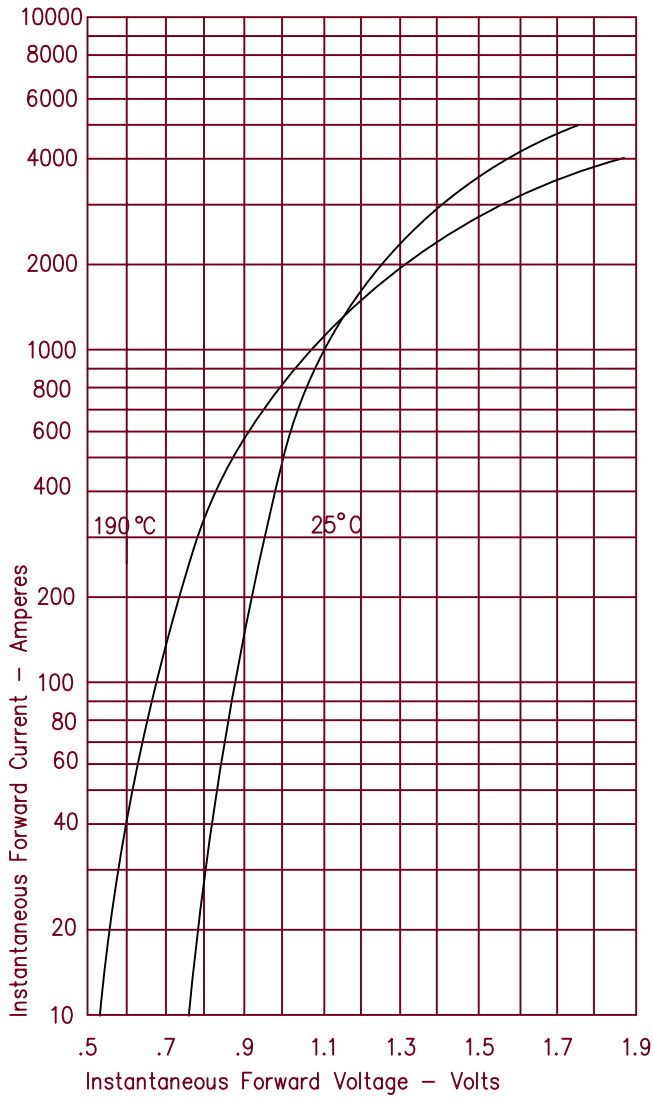


Figure 3  
Forward Current Derating

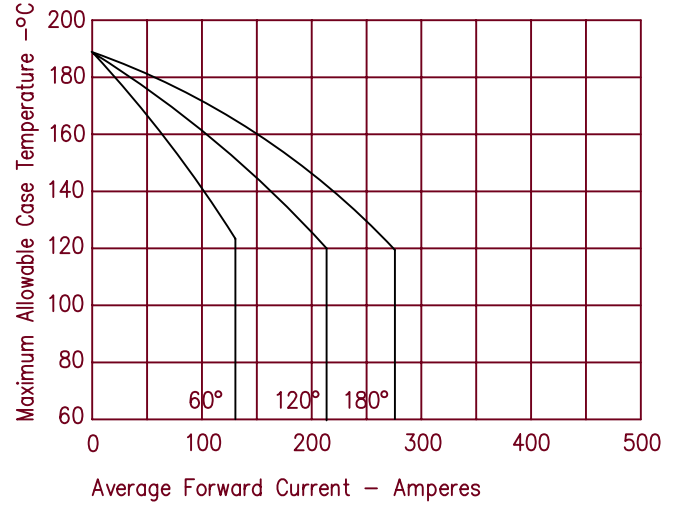


Figure 4  
Maximum Forward Power Dissipation

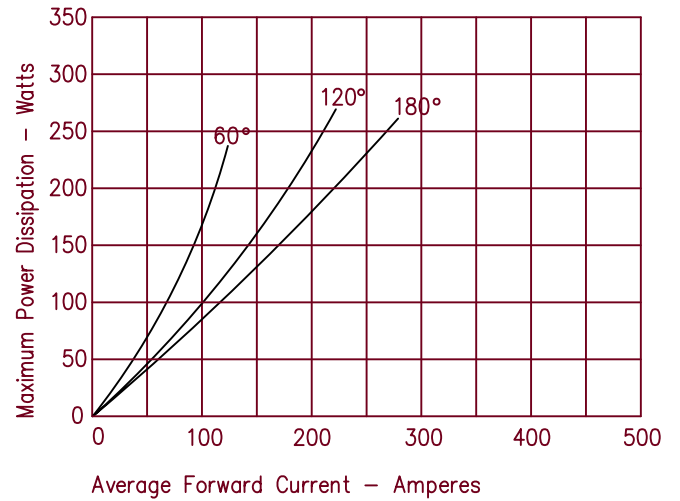


Figure 2  
Typical Reverse Characteristics

