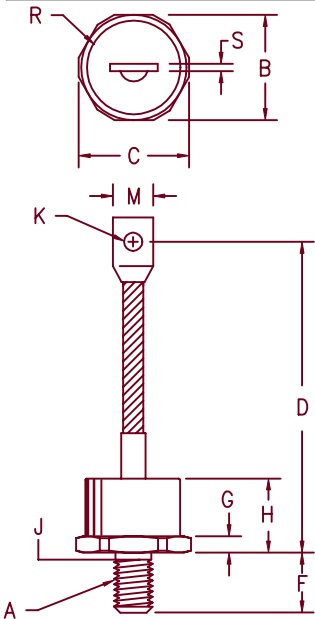


# Silicon Power Rectifier

## 1N4044-1N4056



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	

### Notes:

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

D0205AB (DO-9)

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

Add R suffix for reverse polarity

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

### Electrical Characteristics

Average forward current	$I_F(AV)$ 275 Amps	$T_C = 120^\circ C$ , square wave, $R_{\theta JC} = 0.18^\circ C/W$
Maximum surge current	$I_{FSM}$ 5000 Amps	8.3ms, half sine, $T_J = 190^\circ C$
Max $I^2 t$ for fusing	$I^2 t$ 104125 A <sup>2</sup> s	8.3ms
Max peak forward voltage	$V_{FM}$ 1.3 Volts	$I_{FM} = 300A$ ; $T_J = 25^\circ C^*$
Max peak reverse current	$I_{RM}$ 10 mA	$V_{RRM, T_J} = 150^\circ C$
Max reverse current	$I_{RM}$ 75 uA	$V_{RRM, T_J} = 25^\circ C$

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

### Thermal and Mechanical Characteristics

Storage temperature range	$T_{STG}$	$-65^\circ C$ to $190^\circ C$
Operating junction temp range	$T_J$	$-65^\circ C$ to $190^\circ C$
Maximum thermal resistance	$R_{\theta JC}$	$0.18^\circ C/W$ junction to case
Typical Thermal Resistance (greased)	$R_{\theta CS}$	$.08^\circ C/W$ case to sink
Mounting torque		300-325 inch pounds
Weight		8.5 ounces (240 grams) typical

1-15-01 Rev. 1

# 1N4044-1N4056

Figure 1  
Typical Forward Characteristics

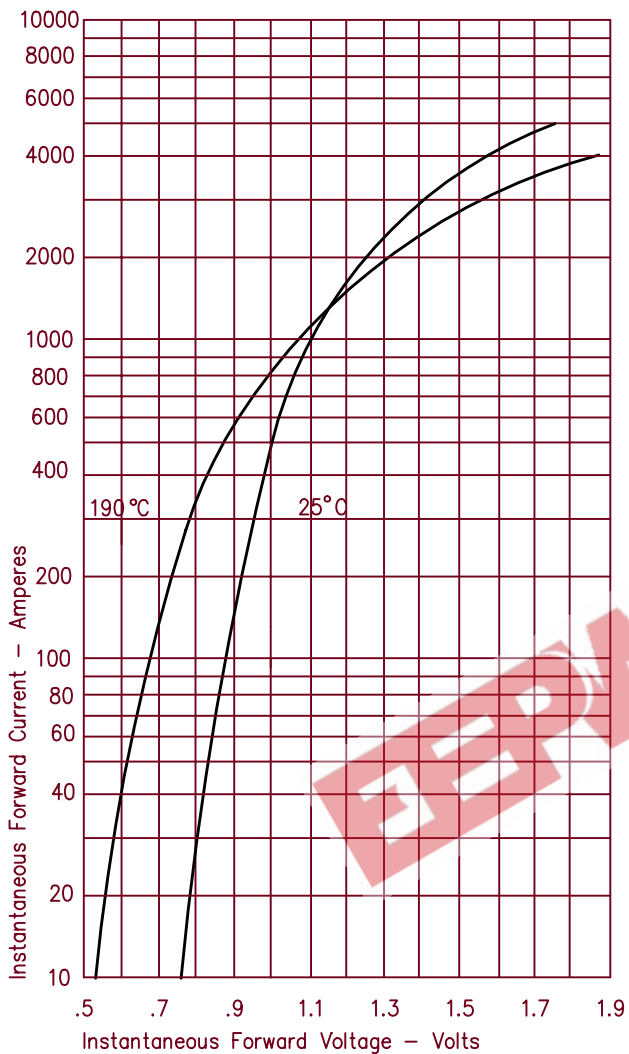


Figure 3  
Forward Current Derating

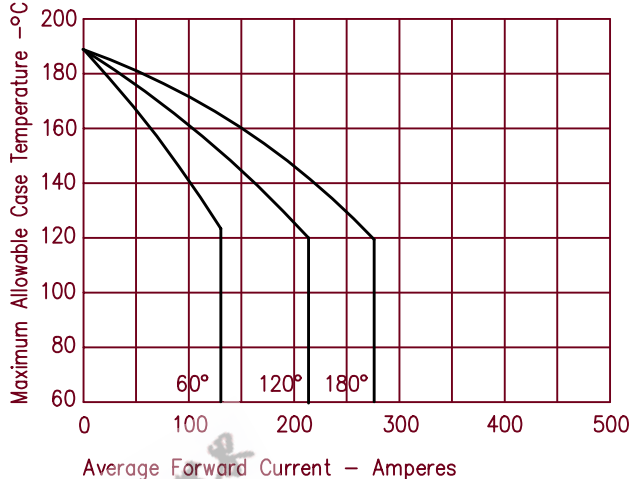


Figure 4  
Maximum Forward Power Dissipation

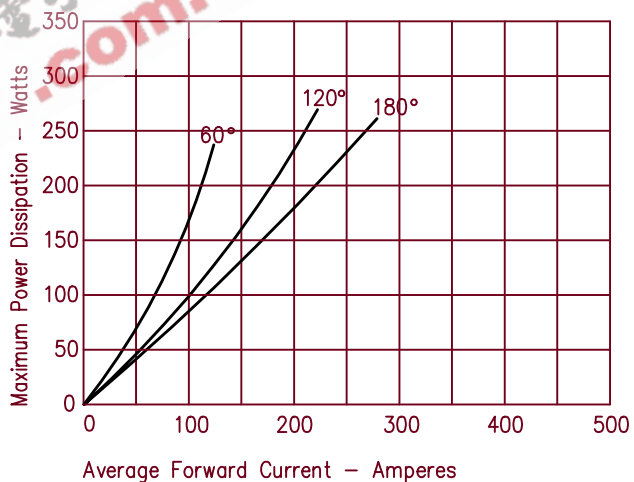


Figure 2  
Typical Reverse Characteristics

