



Micro Commercial Components
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1N4454

Features

- Low Current Leakage
- Compression Bond Construction
- Low Cost

**400mW 75 Volt
Silicon Epitaxial Diode**

Maximum Ratings

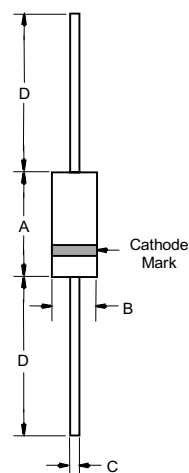
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 400K/W Junction To Ambient

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	V_R	50V	
Peak Reverse Voltage	V_{RM}	75V	
Average Rectified Current	I_O	150mA	Resistive Load $f > 50\text{Hz}$
Power Dissipation	P_{TOT}	400mW	
Maximum Junction Temperature	T_J	150°C	
Peak Forward Surge Current	I_{FSM}	400mA	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM} = 10\text{mA};$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	100nA	$V_R = 50\text{Volts}$ $T_J = 25^\circ\text{C}$
Typical Junction Capacitance	C_J	4.0pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$
Reverse Recovery Time	T_{rr}	4.0nS	$I_F = 10\text{mA}$ $V_R = 6\text{V}$ $R_L = 100\Omega$

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

DO-35

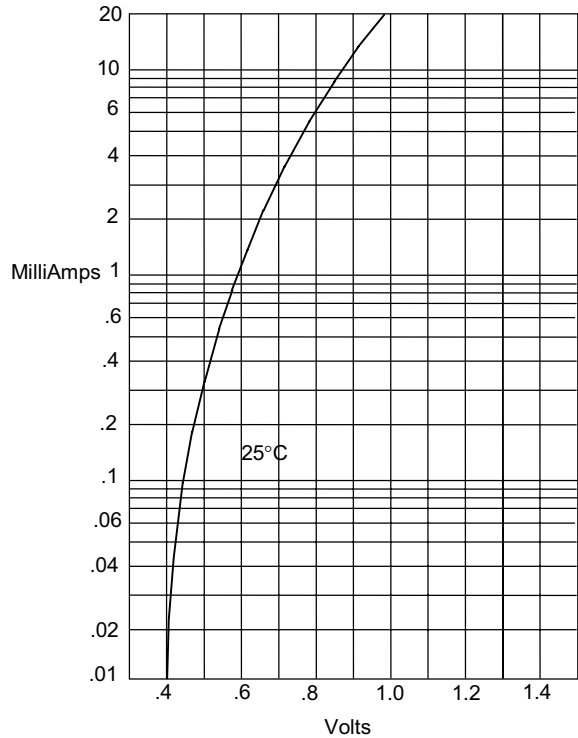


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

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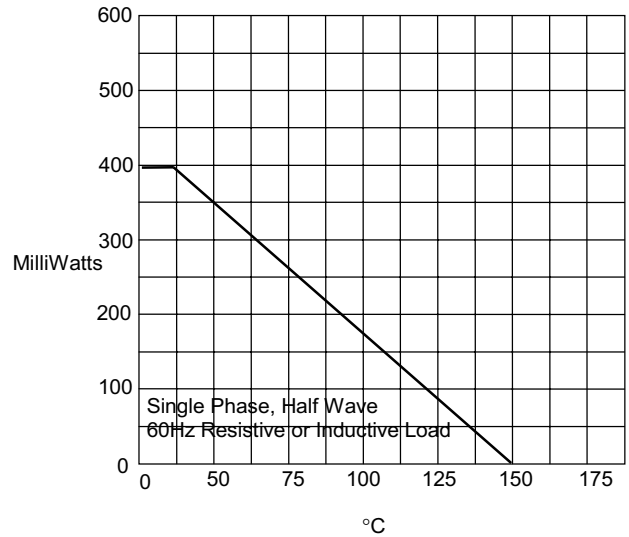


Figure 1
Typical Forward Characteristics



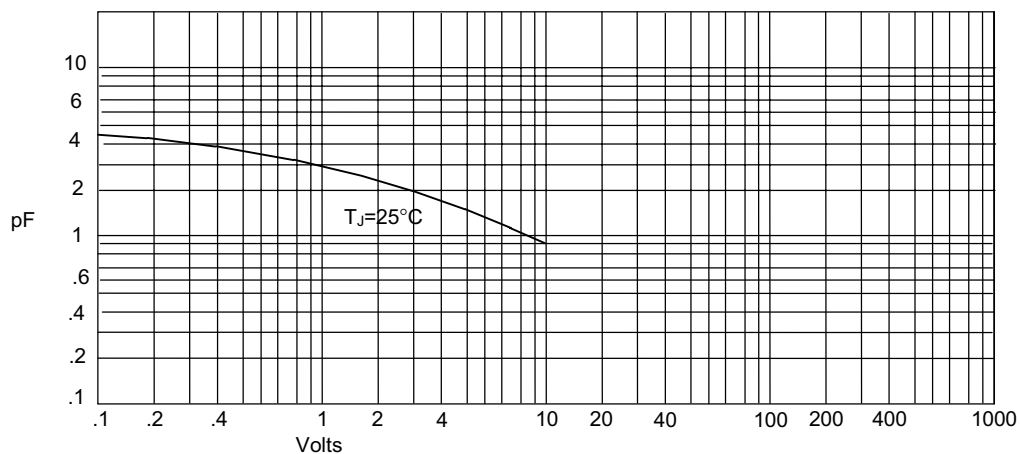
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Admissible Power Dissipation - MilliWatts *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance

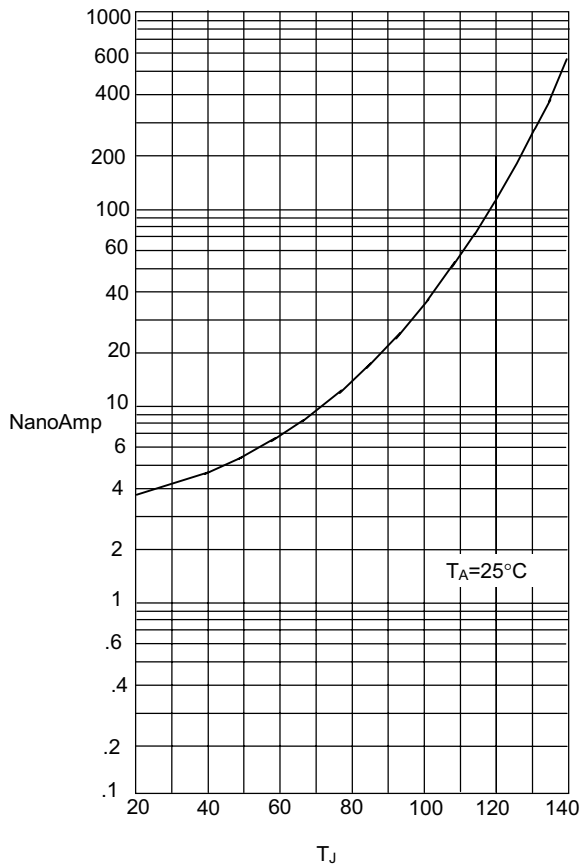


Junction Capacitance - pF *versus*
Reverse Voltage - Volts

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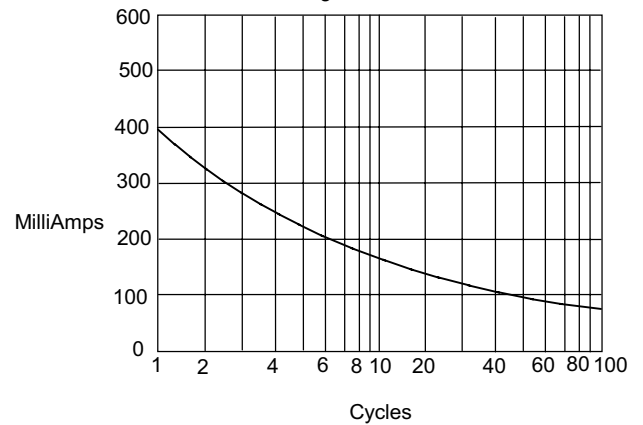
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Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperes versus
Junction Temperature - °C

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles