



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

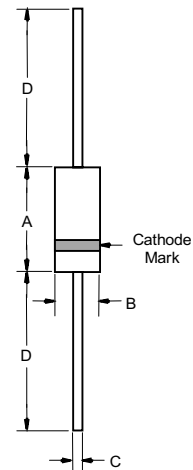
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 400K/W Junction To Ambient

## DO-35

### 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  $\mu\text{sec}$ , Duty cycle 2%

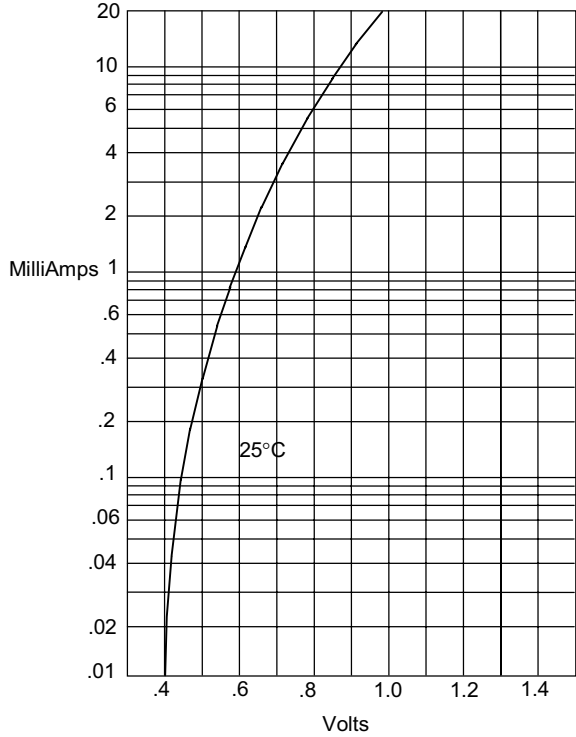


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

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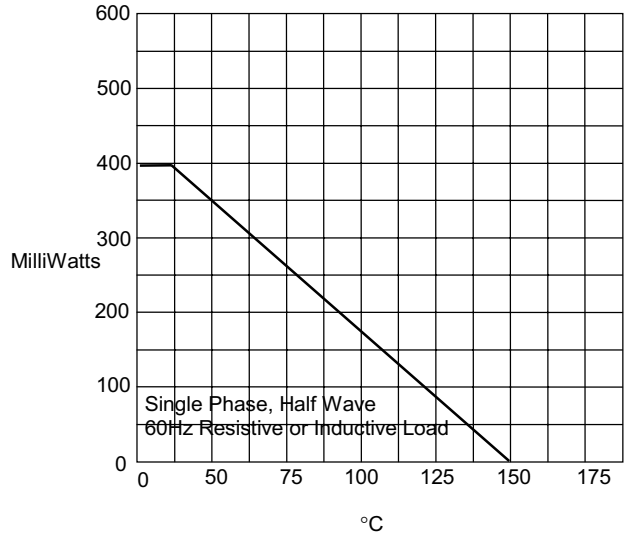


Figure 1  
Typical Forward Characteristics



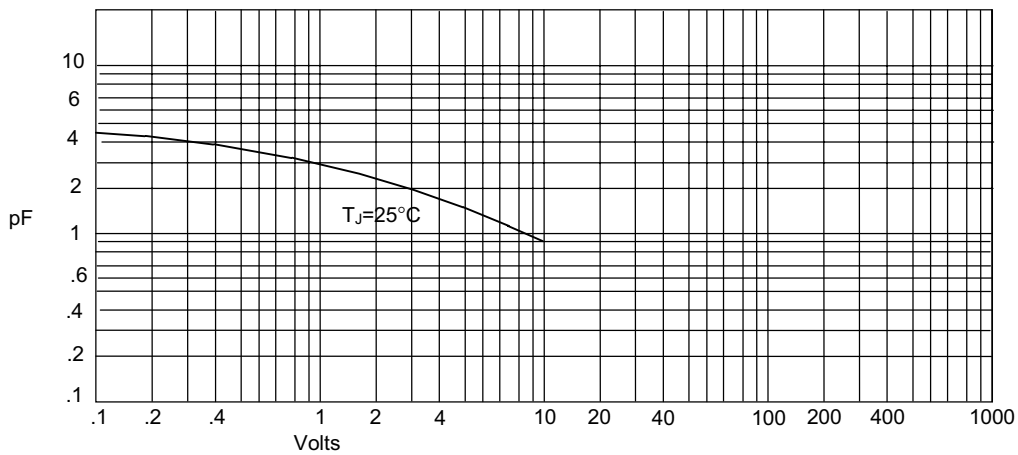
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

Figure 3  
Junction Capacitance

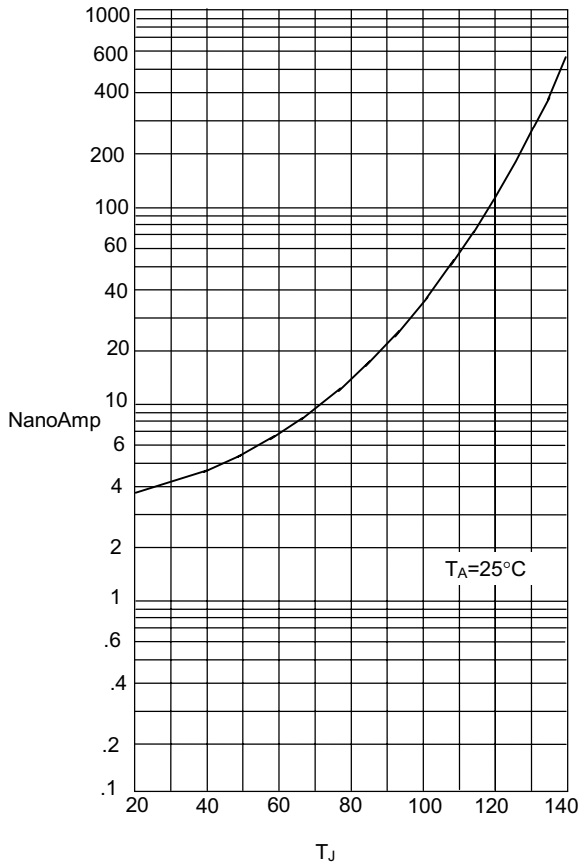


Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

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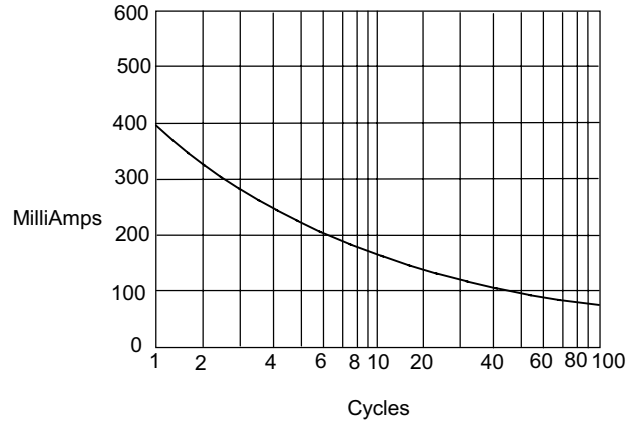


Figure 4  
Typical Reverse Characteristics



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