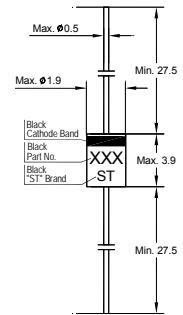


# 1N916, 1N916A, 1N916B

## Silicon Epitaxial Planar Switching Diode



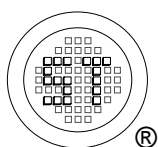
Glass Case DO-35  
Dimensions in mm

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	$V_{RRM}$	100	V
Average Rectified Current	$I_{F(AV)}$	200	mA
Peak Forward Surge Current	$I_{FSM}$	1	A
		4	
Total Power Dissipation	$P_{tot}$	500	mW
Junction Temperature	$T_j$	175	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 200	$^\circ\text{C}$

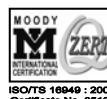
### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$ at $I_R = 5\text{ }\mu\text{A}$	$V_{(BR)R}$	100 75	- -	V
Reverse Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}$ , $T_j = 150\text{ }^\circ\text{C}$	$I_R$	- - -	25 5 50	nA $\mu\text{A}$ $\mu\text{A}$
Forward Voltage at $I_F = 5\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 20\text{ mA}$ at $I_F = 30\text{ mA}$	$V_F$ $V_F$ $V_F$ $V_F$	0.63 - - -	0.73 1 1 1	V V V V
Total Capacitance at $V_R = 0$ , $f = 1\text{ MHz}$	$C_T$	-	2	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$ , $V_R = 6\text{ V}$ (60 mA), $I_{RR} = 1\text{ mA}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	-	4	ns



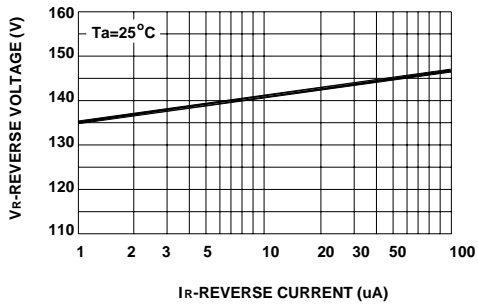
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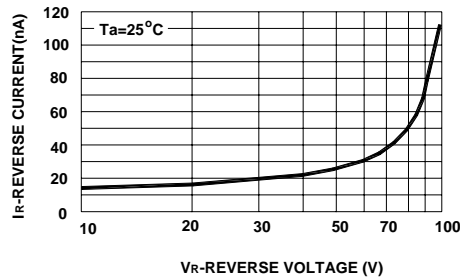


# 1N916, 1N916A, 1N916B

**REVERSE VOLTAGE vs REVERSE CURRENT**  
BV-1.0 to 100  $\mu$ A

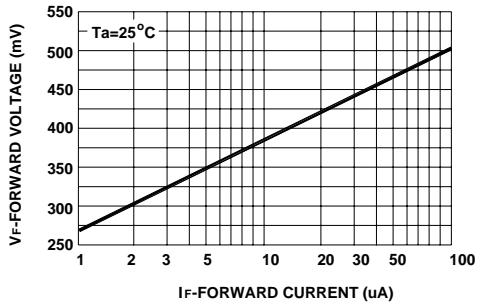


**REVERSE CURRENT vs REVERSE VOLTAGE**  
IR-10 to 100 V

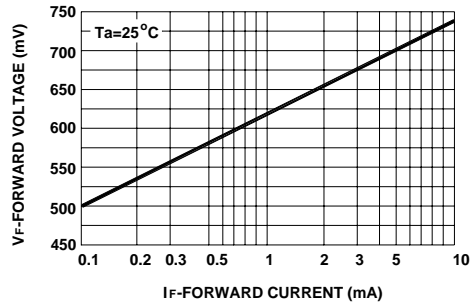


GENERAL RULE: The Reverse Current of a diode will approximately double for every ten (10) Degree C increase in Temperature

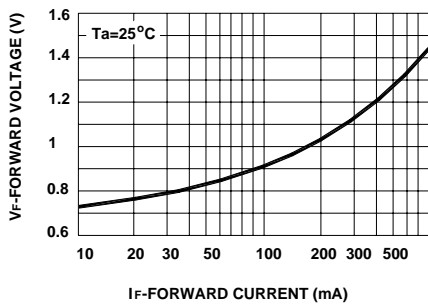
**FORWARD VOLTAGE vs FORWARD CURRENT**  
VF-1 to 100  $\mu$ A



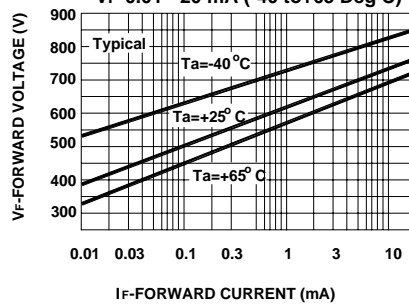
**FORWARD VOLTAGE vs FORWARD CURRENT**  
VF-0.1 to 100 mA



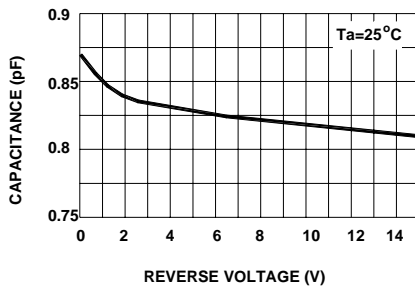
**FORWARD VOLTAGE vs FORWARD CURRENT**  
VF-10 to 800 mA



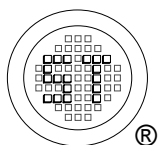
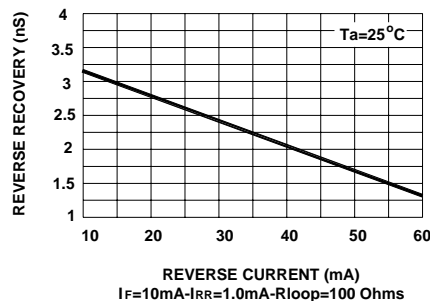
**FORWARD VOLTAGE vs AMBIENT TEMPERATURE**  
VF-0.01 - 20 mA (-40 to +65 Deg C)



**CAPACITANCE vs REVERSE VOLTAGE**  
VR=0.0 to 15 V



**REVERSE RECOVERY TIME vs REVERSE CURRENT**



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