Micro Commercial Components

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1N916(A)(B)

500mW 100 Volt Small Signal Diodes

Features

- Moisture Sensitivity: Level 1 per J-STD-020C
- Low Current Leakage
- Compression Bond Construction
- Low Cost
- Marking : Cathode band and type number
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)

Maximum Ratings

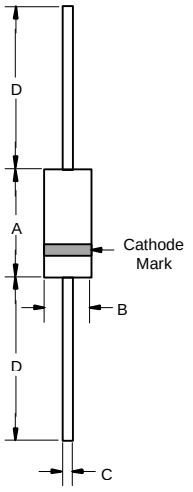
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 300°C/W Junction To Ambient

Electrical Characteristics @ 25°C Unless Otherwise Specified

Peak Reverse Voltage	V_{RM}	100V	
Average Rectified Forward Current	$I_{F(AV)}$	200mA	
Power Dissipation	P_{TOT}	500mW	
Junction Temperature	T_J	150°C	
Peak Forward Surge Current	I_{FSM}	1.0A 4.0A	Pulse Width=1.0s Pulse Width=1.0ms
Breakdown Voltage	V_R	100 75	I_R=100uA I_R=5.0uA
Maximum Instantaneous Forward Voltage 1N916 1N916A 1N916B 1N916B	V_F	 1.0V 1.0V 1.0V 730mV	T_J = 25°C* I_{FM}= 10mA; I_{FM}= 20mA; I_{FM}= 20mA; I_{FM}= 5.0mA;
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25nA 5.0uA 50uA	T_J=25°C, V_R=20V V_R=75V, V_R=20V, T_J=150°C
Typical Junction Capacitance	C_T	2.0pF	Measured at 1.0MHz, V_R=0
Reverse Recovery Time	T_{rr}	4.0nS	I_F=10mA V_R = 6V, Irr=1.0mA R_L=100 OHM

Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.

DO-35



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

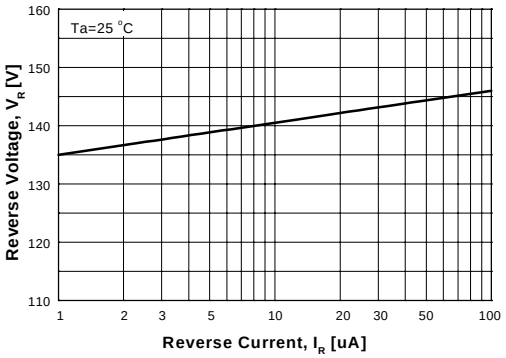
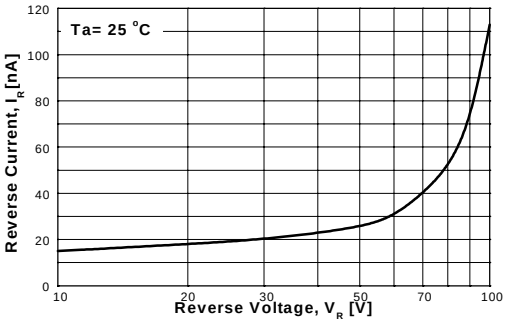


Figure 1. Reverse Voltage vs Reverse Current
BV - 1.0 to 100 uA



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

Figure 2. Reverse Current vs Reverse Voltage
IR - 10 to 100 V

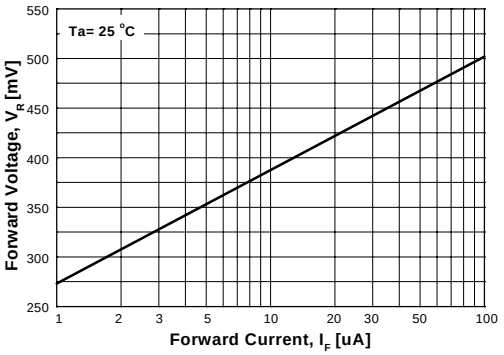


Figure 3. Forward Voltage vs Forward Current
VF - 1 to 100 uA

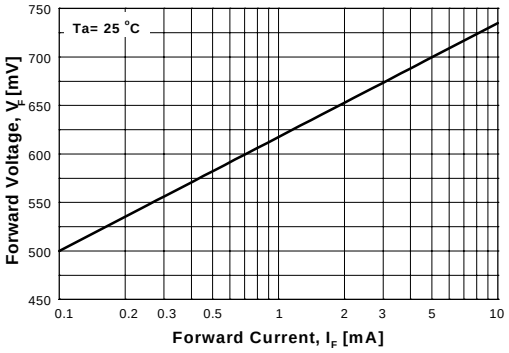


Figure 4. Forward Voltage vs Forward Current
VF - 0.1 to 10 mA

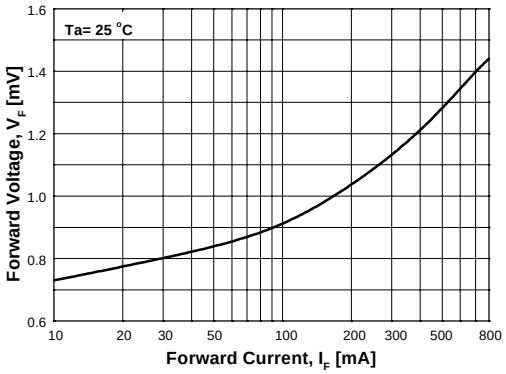


Figure 5. Forward Voltage vs Forward Current
VF - 10 to 800 mA

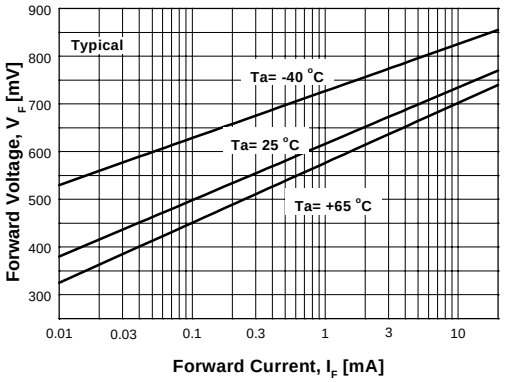


Figure 6. Forward Voltage
vs Ambient Temperature
VF - 0.01 - 20 mA (-40 to +65 Deg C)

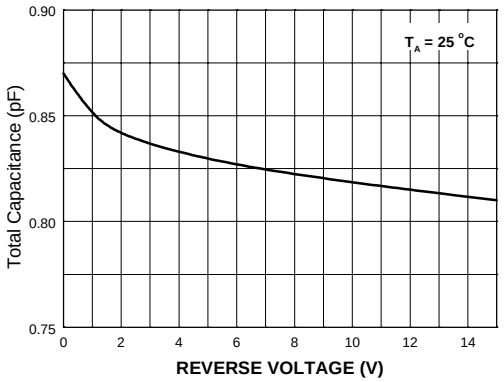


Figure 7. Total Capacitance

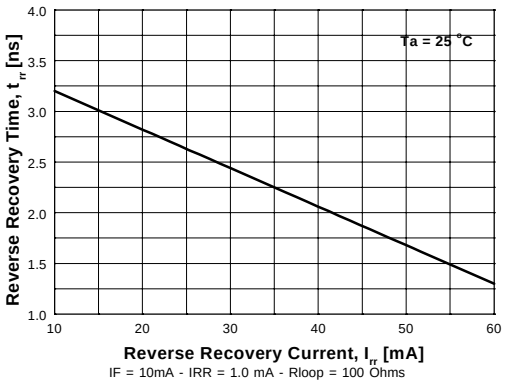


Figure 8. Reverse Recovery Time vs Reverse Recovery Current

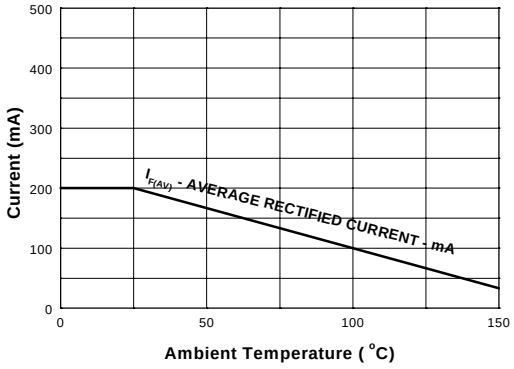


Figure 9. Average Rectified Current ($I_{F(AV)}$) versus Ambient Temperature (T_A)

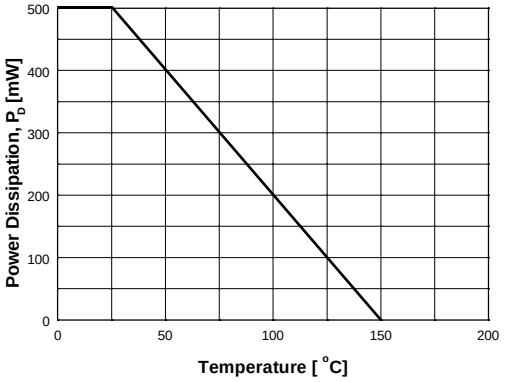


Figure 10. Power Derating Curve

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Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel; 10Kpcs/Reel
(Part Number)-AP	Ammo Packing;5Kpcs/AmmoBox
(Part Number)-BP	Bulk;500pcs/Bag