

High-reliability discrete products and engineering services since 1977

# 1N3600, 1N4150

## **SWITCHING RECTIFIERS**

#### **FEATURES**

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

#### **MAXIMUM RATINGS**

Operating junction and storage temperature range	-65° to 175°C	
Operating current	300mA @ T <sub>A</sub> = 25°C	
Derating current	2.0mA dc/°C above $T_L = 75$ °C @ L = 3/8"	
Forward surge current	4A ( $t_p = 1\mu s$ ); 0.5A ( $t_p = 1s$ )	

### **ELECTRICAL CHARACTERISTICS** (T<sub>A</sub> = 25°C unless otherwise specified)

	Breakdown voltage	Working peak reverse voltage	Reverse current	Reverse current	Capacitance	Reverse recovery time
	$V_{BR}$		I <sub>R1</sub>	I <sub>R2</sub>	С	t <sub>rr</sub>
Part number	Part number I <sub>R</sub> = 10μA	V <sub>RWM</sub>	V <sub>R</sub> = 50Vdc	V <sub>R</sub> = 50Vdc	V <sub>R</sub> = 0, f = 1MHz	I <sub>F</sub> = I <sub>R</sub> = 10 to 100mA dc
			T <sub>A</sub> = 25°C	T <sub>A</sub> = 150°C	ac signals = 50mV(p-p)	R <sub>L</sub> = 100Ω
	Vdc	V(pk)	μA dc	μA dc	pF	ns
1N3600	75	50	0.1	100	2.5	4
1N4150	75	50	0.1	100	2.5	4

#### **FORWARD VOLTAGE LIMITS**

	V <sub>F1</sub>	V <sub>F2</sub>	$V_{F3}$	$V_{F4}$	V <sub>F5</sub>	
Limits	I <sub>F</sub> = 1mA dc		I <sub>F</sub> = 50mA dc (pulsed)	I <sub>F</sub> = 100 mA dc (pulsed)	I <sub>F</sub> = 200mA dc (pulsed)	
	Vdc	Vdc	Vdc	Vdc	Vdc	
Minimum	0.540	0.660	0.760	0.820	0.870	
Maximum	0.620	0.740	0.860	0.920	1.000	



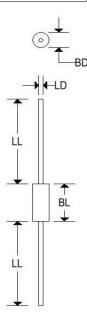
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### MECHANICAL CHARACTERISTICS

Case:	DO-35	
Marking:	Body painted, alpha-numeric	
Polarity:	Cathode band	



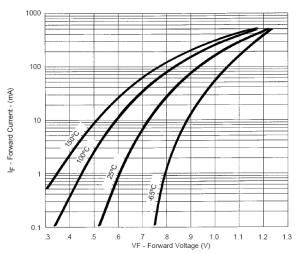
	DO-35					
	Inc	hes	Millimeters			
	Min	Max	Min	Max		
BD	0.055	0.090	1.400	2.290		
BL	0.120	0.200	3.050	5.080		
LD	0.018	0.022	0.460	0.560		
LL	1.000	1.500	25.400	38,100		



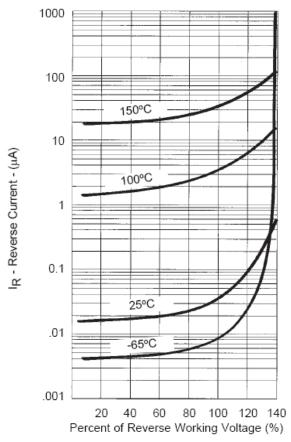
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## **SWITCHING RECTIFIERS**



TYPICAL FORWARD CURRENT VS. FORWARD VOLTAGE



TYPICAL REVERSE CURRENT VS. REVERSE CURRENT