

High-reliability discrete products and engineering services since 1977

1N6356-1N6372

Transient Voltage Suppressor 1500 Watt

FEATURES:

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number
- Available Non-RoHS (standard) or RoHS compliant (add PBF suffix)
- 1500 Watts for $10/1000\mu s$ with repetition rate of 0.01% or less at lead temperature $T_L = 25$ °C.

MAXIMUM RATINGS

Characteristics	Value		
Thermal resistance	50°C/W junction to lead at 0.375" from body or 110°C/W junction to ambient when mounted on FR4 PC board with 4 mm² copper pads and track width of 1mm, length 25mm		
DC power dissipation	1 Watt at T _L ≤ 125°C 3/8" or 10 mm from body		
Forward surge current	200 Amps for 8.3ms half-sine wave at T _A = 25°C for unidirectional only (1N6356-1N6364)		
Solder temperature	260°C for 10 sec maximum		
Operating and storage temperature	-65° to 175°C		

ELECTRICAL CHARACTERISTICS UNIDIRECTIONAL (T_A = 25°C)

Part number	Standoff voltage ⁽¹⁾	Maximum reverse leakage @ V _{WM}	Minimum breakdown voltage @ 1.0mA	Maximum clamping voltage @ I _{PP1} = 1A	Maximum clamping voltage @ IPP2 = 10A	Maximum peak pulse current
	V_{WM}	I _D	$V_{(BR)}$	V _c	V _c	I _{PP3}
	Volts	μΑ	Volts	Volts	Volts	Amps
1N6356	5.0	300	6.0	7.1	7.5	160
1N6357	8.0	25	9.4	11.3	11.5	100
1N6358	10.0	2	11.7	13.7	14.1	90
1N6359	12.0	2	14.1	16.1	16.5	70
1N6360	15.0	2	17.6	20.1	20.6	60
1N6361	18.0	2	21.2	24.2	25.2	50
1N6362	22.0	2	25.9	29.8	32.0	40
1N6363	36.0	2	42.4	50.6	54.3	23
1N6364	45.0	2	52.9	63.3	70.0	19

ELECTRICAL CHARACTERISTICS - BIDIRECTIONAL (TA = 25°C)

Part number	Standoff voltage ⁽¹⁾	Maximum reverse leakage @ V _{WM}	Minimum breakdown voltage @ 1.0mA	Maximum clamping voltage @ I _{PP1} = 1A	Maximum clamping voltage @ IPP2 = 10A	Maximum peak pulse current
	V _{wm}	I _D	V _(BR)	V _c	V _c	I _{PP3}
	Volts	μΑ	Volts	Volts	Volts	Amps
1N6365	8.0	25	9.4	11.4	11.6	100
1N6366	10.0	2	11.7	14.1	14.5	90
1N6367	12.0	2	14.1	16.7	17.1	70
1N6368	15.0	2	17.6	20.8	21.4	60
1N6369	18.0	2	21.2	24.8	25.5	50
1N6370	22.0	2	25.9	30.8	32.0	40



High-reliability discrete products and engineering services since 1977

1N6356-1N6372

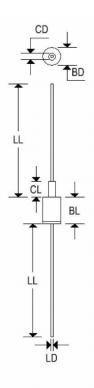
Transient Voltage Suppressor 1500 Watt

ELECTRICAL CHARACTERISTICS - **BIDIRECTIONAL** $(T_A = 25^{\circ}C)$

Part number	Standoff voltage ⁽¹⁾	Maximum reverse leakage @ V _{wm}	Minimum breakdown voltage @ 1.0mA	Maximum clamping voltage @ I _{PP1} = 1A	Maximum clamping voltage @ IPP2 = 10A	Maximum peak pulse current	
	V _{wm}	I _D	V _(BR)	V _c	V _c	I _{PP3}	
	Volts	μΑ	Volts	Volts	Volts	Amps	
1N6371	36.0	2	42.4	50.6	54.3	23	
1N6372	45.0	2	52.9	63.3	70.0	19	

MECHANICAL CHARACTERISTICS

Case DO-13	
Marking Alpha-numeric, body painted	
Polarity	Cathode band



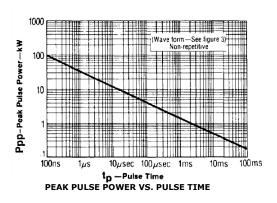
	DO-13					
	Inches Millimeters					
	Min	Max	Min	Max		
BD		0.235	*	5.970		
BL	0.315	0.350	8.001	8.890		
LD	0.027	0.035	0.686	0.762		
LL	1.250	•	31.750			
CD	-	0.100	-	2.540		
CL	-	0.210	-	5.334		

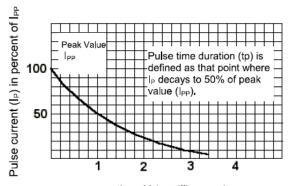


High-reliability discrete products and engineering services since 1977

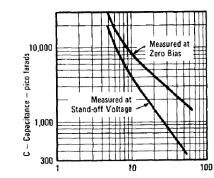
1N6356-1N6372

Transient Voltage Suppressor 1500 Watt

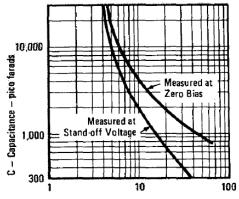




time (t) in milliseconds
PULSE WAVE FORM FOR EXPONENTIAL SURGE



 $m V_{(BR)} - Breakdown \, Voltage - Volts$ TYPICAL CAPACITANCE VS. BREAKDOWN VOLTAGE (UNIDIRECTIONAL)



V(BR) — Breakdown Voltage — Volts
TYPICAL CAPACITANCE VS. BREKADOWN VOLTAGE
(BIDIRECTIONAL)

