

Transient Voltage Suppressor Diodes

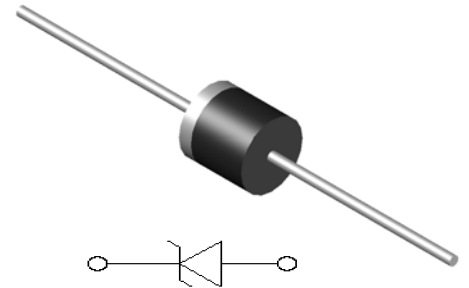
FEATURE

- ✧ Plastic package.
- ✧ Glass passivated chip junction in P600 Package
- ✧ Excellent clamping capability.
- ✧ Low zener impedance.
- ✧ 20000W peak pulse power capability on 10/1000 μ s waveform.
- ✧ Typical IR less than 5 μ A above 30V.
- ✧ Fast response time: typically less than 1.0ns from 0 Volts to BV min.
- ✧ High temperature soldering guaranteed: 265 $^{\circ}$ C/10 seconds

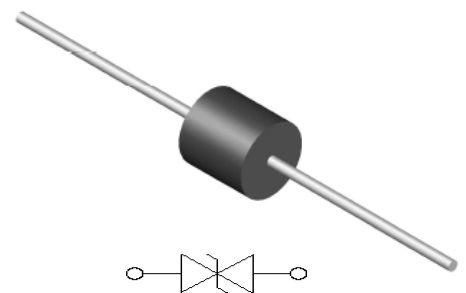
MECHANICAL DATE

- ✧ Case: JEDEC P600 Molded Plastic.
- ✧ Terminals: Axial leads, solderable per MIL-STD-750, Method 2026.
- ✧ Polarity: Color band denoted cathode except bidirectional.
- ✧ Mounting Position: Any.

Uni-directional



Bi-directional



MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 $^{\circ}$ C ambient temperature unless otherwise specified.

Peak Pulse Power Dissipation on 10/1000 μ s waveform (Note1, Fig.1).	P_{PPM}	Minimum20000	Watts
Peak Pulse Current of on 10/1000 μ s waveform. (Note1)	I_{PPM}	See Table	Amps
Steady State Power Dissipation at $T_L = 75^{\circ}C$, Lead lengths. 375", (9.5mm) .	$P_{M(AV)}$	1.0	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 2).	I_{FSM}	400	Amps
Operating junction and Storage Temperature Range.	T_J, T_{STG}	-55 to +150	$^{\circ}C$

Notes:

1. Non-repetitive current pulse, per Fig. 3 and derated above $T_A = 25^{\circ}C$ per Fig. 2.
2. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

20KP SERIES

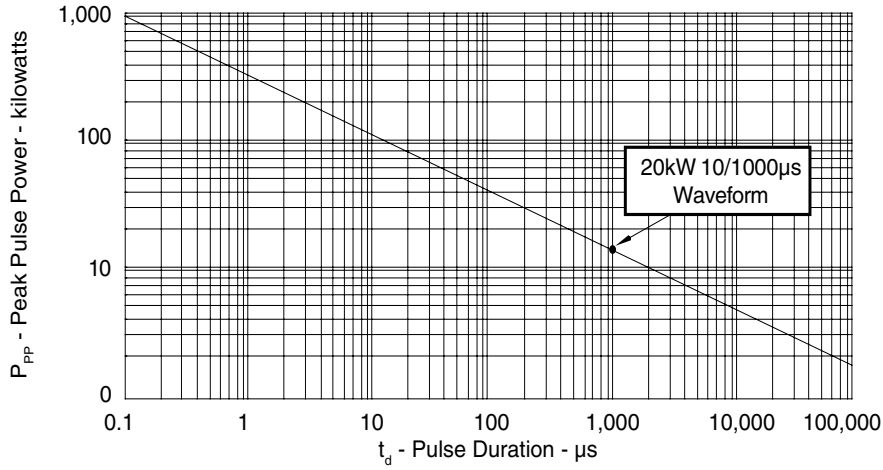


Part Number (Uni)	Part Number (Bi)	Reverse Stand off Voltage V_R (Volts)	Breakdown Voltage V_{BR} (Volts) @ I_T	Test Current I_T (mA)	Maximum Peak Pulse Current I_{PP} (A)	Maximum Reverse Leakage I_R @ V_R (μA)	Maximum Clamping Voltage V_C @ I_{PP} (V)
			MIN				
20KPA20A	20KPA20CA	20	22.34	50	548.9	5000	36.8
20KPA24A	20KPA24CA	24	26.81	50	490.3	5000	41.2
20KPA26A	20KPA26CA	26	29.04	50	451.9	2000	44.7
20KPA28A	20KPA28CA	28	31.28	50	420.8	1000	48.0
20KPA30A	20KPA30CA	30	33.51	5	392.2	250	51.5
20KPA32A	20KPA32CA	32	35.74	5	372.0	150	54.3
20KPA34A	20KPA34CA	34	38.00	5	351.3	50	57.5
20KPA36A	20KPA36CA	36	40.20	5	328.5	20	61.5
20KPA40A	20KPA40CA	40	44.70	5	297.9	15	67.8
20KPA44A	20KPA44CA	44	49.10	5	277.9	2	72.7
20KPA48A	20KPA48CA	48	53.60	5	254.4	2	79.4
20KPA52A	20KPA52CA	52	58.10	5	235.4	2	85.8
20KPA56A	20KPA56CA	56	62.60	5	218.1	2	92.6
20KPA60A	20KPA60CA	60	67.00	5	207.0	2	97.6
20KPA64A	20KPA64CA	64	71.50	5	194.2	2	104.0
20KPA68A	20KPA68CA	68	76.00	5	183.6	2	110.0
20KPA72A	20KPA72CA	72	80.40	5	174.1	2	116.0
20KPA80A	20KPA80CA	80	89.40	5	155.4	2	130.0
20KPA88A	20KPA88CA	88	98.30	5	142.3	2	142.0
20KPA96A	20KPA96CA	96	107.20	5	130.3	2	155.0
20KPA104A	20KPA104CA	104	116.20	5	120.2	2	168.0
20KPA112A	20KPA112CA	112	125.10	5	111.0	2	182.0
20KPA120A	20KPA120CA	120	134.00	5	104.1	2	194.0
20KPA132A	20KPA132CA	132	147.40	5	94.8	2	213.0
20KPA144A	20KPA144CA	144	160.80	5	87.1	2	232.0
20KPA160A	20KPA160CA	160	178.70	5	78.3	2	258.0
20KPA172A	20KPA172CA	172	192.10	5	72.9	2	277.0
20KPA180A	20KPA180CA	180	201.10	5	69.4	2	291.0
20KPA192A	20KPA192CA	192	214.50	5	65.4	2	309.0
20KPA204A	20KPA204CA	204	227.90	5	61.4	2	329.0
20KPA216A	20KPA216CA	216	241.30	5	58.0	2	348.0
20KPA232A	20KPA232CA	232	259.10	5	54.0	2	374.0
20KPA240A	20KPA240CA	240	268.10	5	52.2	2	387.0
20KPA256A	20KPA256CA	256	286.00	5	49.0	2	412.0
20KPA280A	20KPA280CA	280	312.80	5	44.8	2	451.0
20KPA300A	20KPA300CA	300	335.10	5	41.8	2	483.0

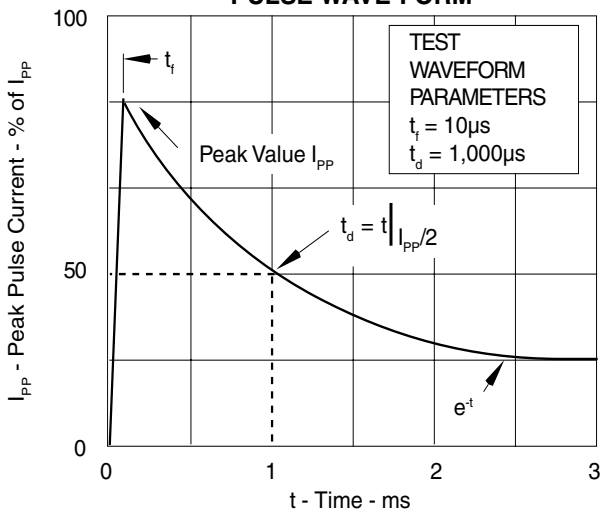
Notes: For bidirectional type having VRWM of 40 volts and less, the IR limit is double.

RATINGS AND CHARACTERISTIC CURVES (TA=25°C unless otherwise noted)

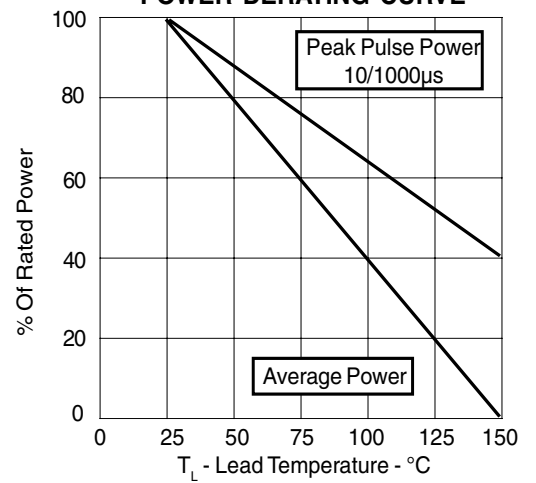
**FIGURE 1
PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2
PULSE WAVE FORM**



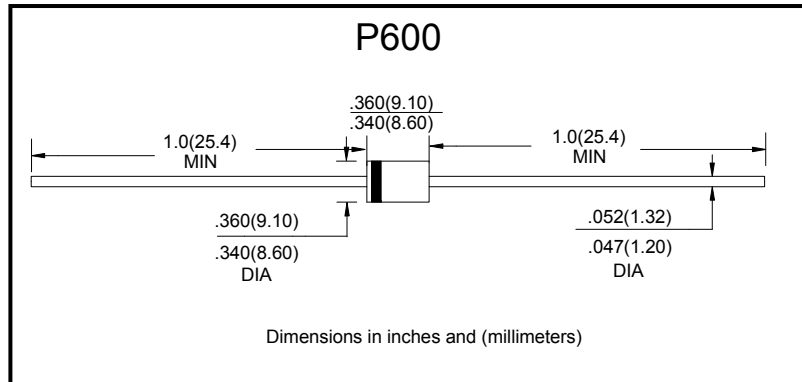
**FIGURE 3
POWER DERATING CURVE**



■ Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
20K P Series	P600	350	350	3500	Ammo box

■ Outline Dimensions



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