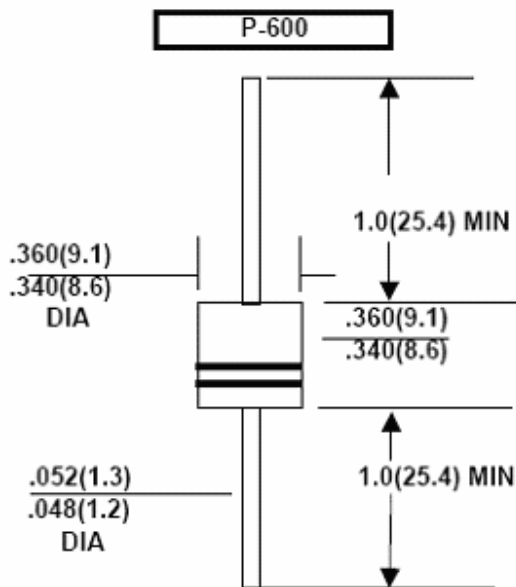




**Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- 20000W Peak Pulse Power capability on 10/1000  $\mu$ s waveform
- Voltage-20.0 to 300 Volts
- Excellent clamping capability
- Repetition rate (duty cycle): 0.05%
- Low incremental surge resistance
- Fast response time: typically less than 1.0 ps from 0 volts to BV
- Typical  $I_R$  less than 1 $\mu$ A above 10V
- High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension
- UL Recognized File # E224235
- This is a Pa-Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



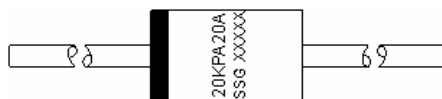
Dimensions in inches (millimeters)

**MECHANICAL DATA**

Case: Molded plastic over glass passivated junction  
 Terminals: Plated Axial leads, solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denoted positive end (cathode) except Bipolar  
 Mounting Position: Any  
 Weight: 0.07 ounce, 2.1 gram  
 Marking: Part Name, SSG and Date Code

**MARKING DIAGRAM**

Where XXXXX is YYWWL



20KPA20A = Part Name  
 SSG = SSG  
 YY = Year  
 WW = Week  
 L = Lot Number

**Cautions:** Molding resin  
 Epoxy resin UL:94V-0



**DEVICES FOR BIPOLAR APPLICATIONS**

For Bidirectional use C or CA Suffix for types 20KPA30 thru types 20KPA288  
Electrical characteristics apply in both directions.

**MAXIMUM RATINGS AND CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000 $\mu$ s waveform (NOTE 1)	Pppm	20000	Watts
Peak Pulse Current of on 10-1000 $\mu$ s waveform (NOTE 1)	Ippm	SEE TABLE 1	Amps
Steady State Power Dissipation at $T_L=75^\circ\text{C}$ Lead Lengths .375", (9.5mm) (NOTE 2)	Pm(AV)	8.0	Watts
Peak Forward Surge Current, 8.3ms Sine-Wave Superimposed on Rated Load, (JEDEC Method) (NOTE 3)	$I_{FSM}$	400.0	Amps
Operatings and Storage Temperature Range	$T_j, T_{stg}$	-55 to +150	$^\circ\text{C}$

Note: 1. Non-repetitive current pulse, per Figure 3 and derated above  $T_A = 25^\circ\text{C}$  per Figure 2

2. Mounted on Copper Pad area of 0.8" x 0.8" (20 x 20mm)

3. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle=4 pulses per minute maximum



Technical Data  
Data Sheet N0216, Rev. A

*Green Products*

UNI-POLAR	BI-POLAR	REVERSE STANDOFF VOLTAGE $V_{RWM}$ (V)	BREAKDOWN VOLTAGE $V_{BR}$ (V) MIN. @ $I_T$	BREAKDOWN VOLTAGE $V_{BR}$ (V) MAX. @ $I_T$	TEST CURRENT ( $I_T$ ) mA	PEAK PULSE CURRENT $I_{PP}$ (A)	REVERSE LEAKAGE @ $V_{RWM}$ $I_R$ ( $\mu$ A)	MAXIMUM CLAMPING VOLTAGE @ $I_{PP}$ Vc (V)
20KPA20A	20KPA20CA	20.00	25.60	28.00	50	543.0	5000	36.8
20KPA24A	20KPA24CA	24.00	26.68	29.48	50	485.0	5000	41.2
20KPA26A	20KPA26CA	26.00	28.88	31.92	50	446.0	2000	44.8
20KPA28A	20KPA28CA	28.00	31.12	34.40	50	417.0	1000	48.0
20KPA30A	20KPA30CA	30.00	33.32	36.84	5	388.0	250	51.6
20KPA32A	20KPA32CA	32.00	35.56	39.32	5	368.0	150	54.4
20KPA34A	20KPA34CA	34.00	37.76	41.60	5	347.0	50	57.6
20KPA36A	20KPA36CA	36.00	40.00	44.40	5	325.0	20	61.6
20KPA40A	20KPA40CA	40.00	44.40	49.20	5	294.0	15	68.0
20KPA44A	20KPA44CA	44.00	48.80	54.00	5	275.0	10	72.8
20KPA48A	20KPA48CA	48.00	53.20	58.80	5	251.0	10	79.6
20KPA52A	20KPA52CA	52.00	57.60	63.60	5	233.0	10	86.0
20KPA56A	20KPA56CA	56.00	62.40	68.80	5	216.0	10	92.8
20KPA60A	20KPA60CA	60.00	66.80	74.00	5	205.0	10	97.6
20KPA64A	20KPA64CA	64.00	71.20	78.80	5	192.0	10	104.0
20KPA68A	20KPA68CA	68.00	75.60	83.60	5	181.0	10	110.4
20KPA72A	20KPA72CA	72.00	80.00	88.40	5	171.0	10	116.8
20KPA80A	20KPA80CA	80.00	88.80	98.00	5	154.0	10	129.6
20KPA88A	20KPA88CA	88.00	97.60	107.60	5	141.0	10	142.0
20KPA96A	20KPA96CA	96.00	106.80	118.00	5	129.0	10	155.6
20KPA104A	20KPA104CA	104.00	115.60	127.60	5	119.0	10	168.4
20KPA112A	20KPA112CA	112.00	124.40	137.60	5	110.0	10	181.6
20KPA120A	20KPA120CA	120.00	133.20	147.20	5	103.0	10	193.6
20KPA132A	20KPA132CA	132.00	146.80	162.40	5	93.8	10	213.2
20KPA144A	20KPA144CA	144.00	160.00	176.80	5	86.1	10	232.4
20KPA160A	20KPA160CA	160.00	177.60	196.40	5	77.5	10	258.0
20KPA172A	20KPA172CA	172.00	191.20	211.20	5	72.0	10	277.6
20KPA180A	20KPA180CA	180.00	200.00	221.20	5	68.8	10	290.8
20KPA192A	20KPA192CA	192.00	213.20	235.60	5	64.6	10	309.6
20KPA204A	20KPA204CA	204.00	226.80	250.80	5	60.7	10	329.6
20KPA216A	20KPA216CA	216.00	240.00	265.20	5	57.4	10	348.4
20KPA232A	20KPA232CA	232.00	257.60	284.80	5	53.4	10	374.4
20KPA240A	20KPA240CA	240.00	266.80	294.80	5	51.7	10	387.2
20KPA256A	20KPA256CA	256.00	284.40	314.40	5	48.5	10	412.0
20KPA280A	20KPA280CA	280.00	311.20	344.00	5	44.2	10	452.0
20KPA300A	20KPA300CA	300.00	333.20	368.40	5	41.3	10	484.0

For bidirectional type having  $V_{RWM}$  of 40 volts and less, the  $I_R$  limit is double.

For parts without A, the  $V_{BR}$  is  $\pm 10\%$

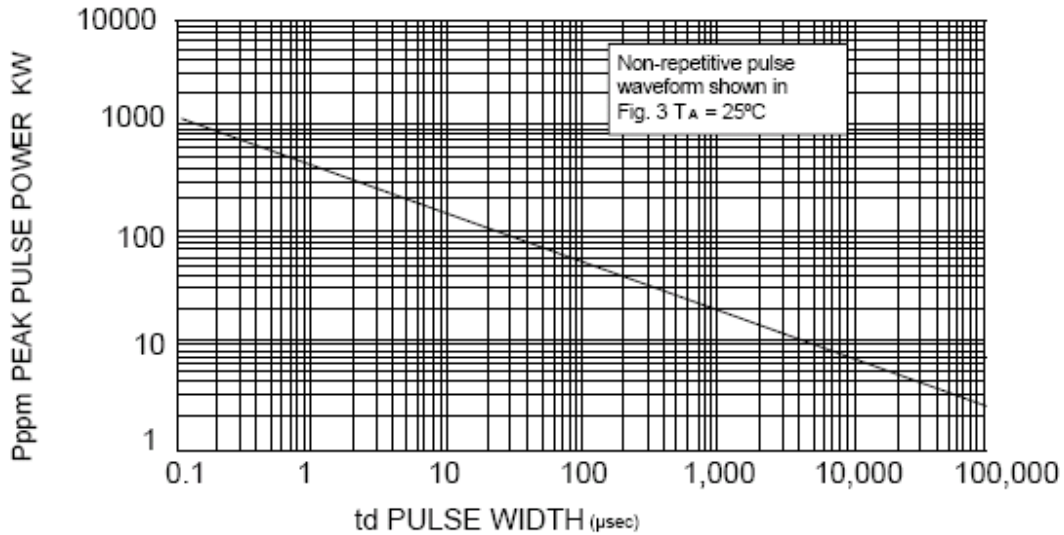


FIG. 1 PEAK PULSE POWER RATING

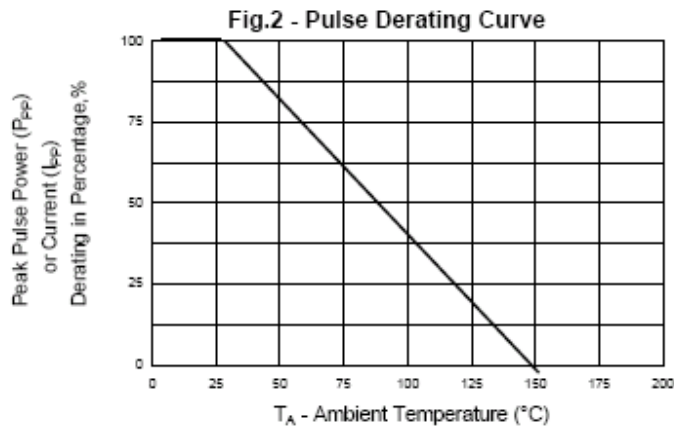
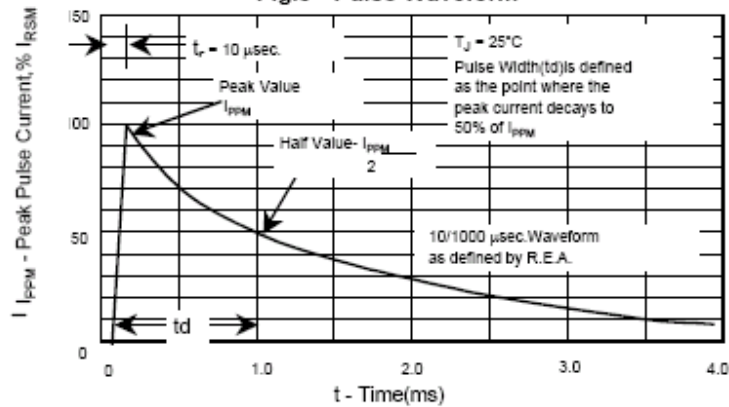


Fig.3 - Pulse Waveform





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