

10KP Series

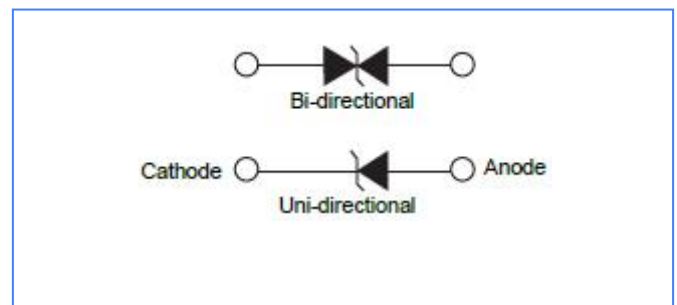
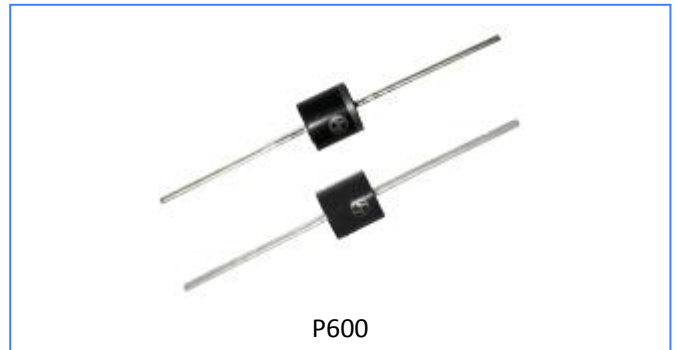
Features

- 10000W peak pulse power capability at 10/1000 μ s waveform, repetition rate (duty cycle): 0.05%
- Fast response time
- Typical IR less than 2 μ A above 30V.
- High Temperature soldering guaranteed: 265°C/10 seconds/.375" , (9.5mm) lead length, 5lbs (2.3kg) tension
- Plastic package has underwriters laboratory flammability 94V-0
- Meets MSL level 1, per J-STD-020.
- Glass passivated junction
- Low incremental surge resistance
- Excellent clamping capability

Mechanical Data

- Case: Moulded plastic over glass passivated junction
- Terminal: Plated Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode except bi-directional models
- Mounting Position: Any

- Weight: 2.30g



Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 10/1000 μ s waveform(Note1, Fig.1)	P _{PPM}	Minimum 10000	Watts
Peak pulse current of at 10/1000 μ s waveform (Note 1, Fig.3)	I _{PPM}	See Table	Amps
Steady state power dissipation at TL=75°C (Fig.5)	P _{M(AV)}	8.0	Watts
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load, (JEDEC Method) (Note2, Fig.6)	I _{FSM}	400	Amps
Operating junction and Storage Temperature Range.	T _J , T _{STG}	-55 to +175	°C
Typical thermal resistance junction to lead	R _{θJL}	8	°C/W
Typical thermal resistance junction to ambient	R _{θJA}	40	°C/W

Note:

1. Non-repetitive current pulse, per Fig.3 and derated above TA=25°C per Fig.2.
2. 8.3ms single half sine-wave, or equivalent square wave, duty cycle=4 pulses per minutes maximum.

Electrical Characteristics (TA = 25 °C unless otherwise noted)

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 Reverse Leakage I_R @ V_R (μ A)	Maximum Peak Pulse Current I_{PP} (A)	Maximum Clamping Voltage V_C @ I_{PP} (V)
			Min .V	Max .V				
10KP17A	10KP17CA	17	18.99	21.22	50	5000	341.3	29.3
10KP18A	10KP18CA	18	20.11	22.65	50	5000	323.6	30.9
10KP20A	10KP20CA	20	22.34	24.96	20	1500	291.5	34.3
10KP22A	10KP22CA	22	24.57	27.46	10	500	269.5	37.1
10KP24A	10KP24CA	24	26.81	29.95	5	150	245.7	40.7
10KP26A	10KP26CA	26	29.04	32.45	5	50	227.3	44.0
10KP28A	10KP28CA	28	31.28	34.95	5	25	210.5	47.5
10KP30A	10KP30CA	30	33.51	37.44	5	15	197.2	50.7
10KP33A	10KP33CA	33	36.90	41.19	5	2	182.8	54.7
10KP36A	10KP36CA	36	40.20	44.93	5	2	167.2	59.8
10KP40A	10KP40CA	40	44.70	49.92	5	2	152.0	65.8
10KP43A	10KP43CA	43	48.00	53.67	5	2	143.3	69.8
10KP45A	10KP45CA	45	50.30	56.16	5	2	137.4	72.8
10KP48A	10KP48CA	48	53.60	59.91	5	2	128.7	77.7
10KP51A	10KP51CA	51	57.00	63.65	5	2	120.6	82.9
10KP54A	10KP54CA	54	60.30	67.39	5	2	114.0	87.7
10KP58A	10KP58CA	58	64.80	72.39	5	2	106.6	93.8
10KP60A	10KP60CA	60	67.00	74.88	5	2	102.7	97.4
10KP64A	10KP64CA	64	71.50	79.87	5	2	96.0	104.2
10KP70A	10KP70CA	70	78.20	87.36	5	2	88.0	113.6
10KP75A	10KP75CA	75	83.80	93.60	5	2	82.0	122.0
10KP78A	10KP78CA	78	87.1	97.35	5	2	79.3	126.1
10KP85A	10KP85CA	85	94.90	106.08	5	2	72.7	137.6
10KP90A	10KP90CA	90	100.50	112.32	5	2	68.7	145.6
10KP100A	10KP100CA	100	111.70	124.80	5	2	62.0	161.3
10KP110A	10KP110CA	110	122.90	137.28	5	2	56.0	178.6
10KP120A	10KP120CA	120	134.00	149.76	5	2	52.0	192.3
10KP130A	10KP130CA	130	145.20	162.25	5	2	48.0	208.3
10KP150A	10KP150CA	150	167.60	187.21	5	2	41.3	241.9
10KP160A	10KP160CA	160	178.70	199.69	5	2	38.7	258.6
10KP170A	10KP170CA	170	189.90	212.17	5	2	36.7	272.7
10KP180A	10KP180CA	180	201.10	224.65	5	2	34.7	288.5
10KP200A	10KP200CA	200	223.40	249.61	5	2	31.3	319.1
10KP220A	10KP220CA	220	245.70	274.57	5	2	28.4	352.5
10KP240A	10KP240CA	240	268.10	299.53	5	2	26.0	384.6
10KP260A	10KP260CA	260	290.40	324.49	5	2	24.0	416.7
10KP280A	10KP280CA	280	312.80	349.45	5	2	22.0	454.5

Rating & Characteristic Curves

Figure 1- Peak Pulse Power Rating Curve

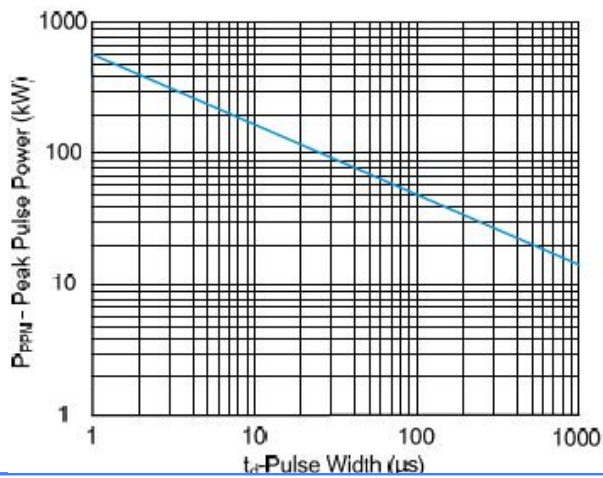


Figure 2- Pulse Derating Curve

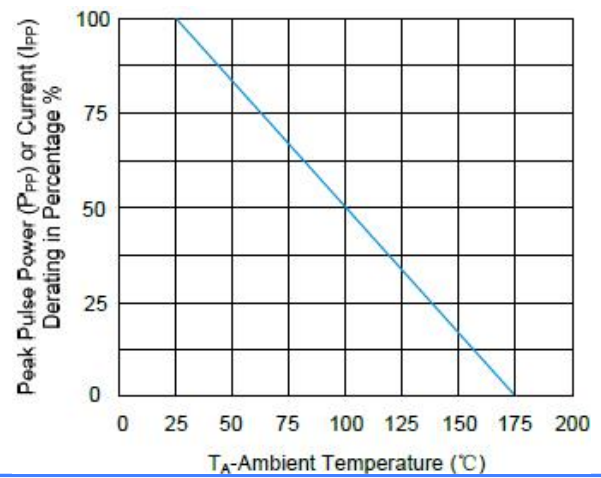


Figure 3- Pulse Waveform

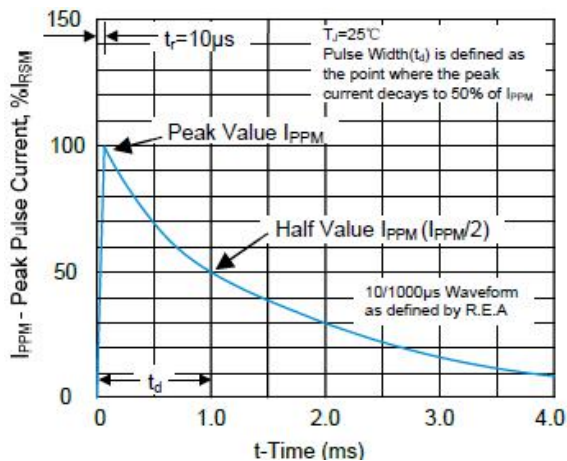


Figure 4- Typical Junction Capacitance

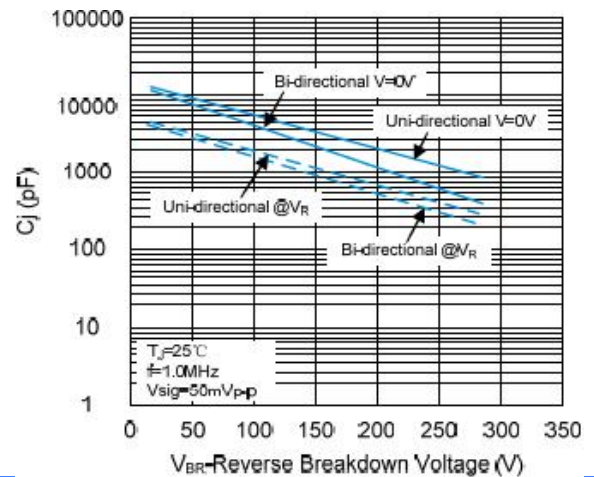
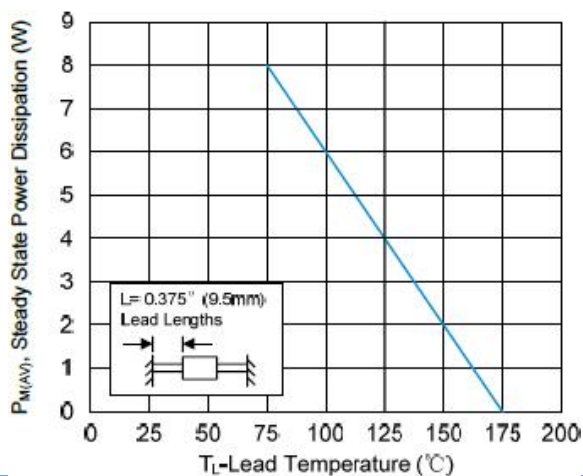
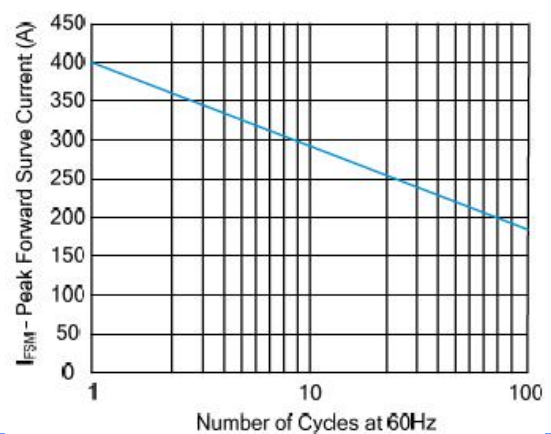
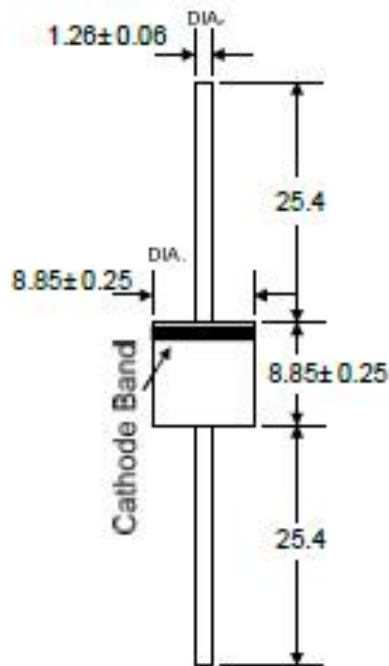


Figure 3- Steady State Power Dissipation Derating Curve


Figure 3- Maximum Non-Repetitive Forward Surge Current
Uni-Directional Only


PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.