FEATURES



P600

- Glass passivated junction.
- 5000W Peak Pulse Power capability at 10/1000μs waveform，repetition rate（duty cycles）：0.05%.
- Excellent clamping capability.
- Low incremental surge resistance.
- Very fast response time;
- Typical I_R less than 5μA above 10V.

MECHANICAL DATA

- Case: Molded plastic over glass passivated junction.
- Terminals: Plated Axial leads, solderable per MIL-STD-750, Method 2026.
- Polarity : Color band denotes cathode except bipolar.
- Weight : 2.1 grams.

DEVICES FOR BIPOLAR APPLICATIONS

- Bidirectional types use CA suffix.
- Electrical Characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Type Number	Symbol	Value	Units
Peak Pulse Power Dissipation with 10/1000μs waveform （Fig.1）（Note 1）	P_{PPM}	5000	Watts
Steady State Power Dissipation on infinite heat sink at T_L= 75°C（Fig.5）	P_D	8.0	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Unidirectional only (Note 2)	I_{FSM}	400	A
Maximum Instantaneous Forward Voltage at 100A for Unidirectional Only (Note 3)	V_F	3.5 / 5.0	Volts
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 175	°C

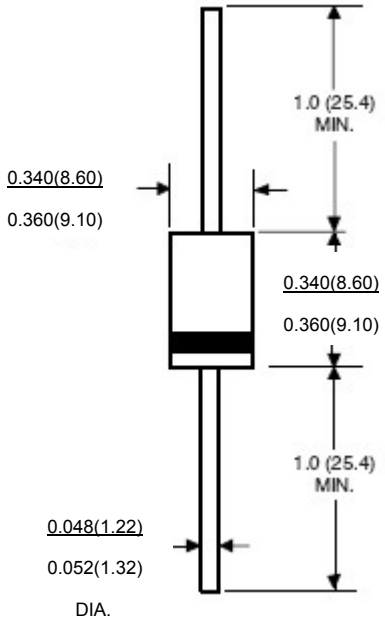
Notes: 1. Non-repetitive current pulse and derated above T_A= 25°C.

2. 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

3.V_F= 3.5V for devices of V_{BR}δ 200V and V_F= 5.0V maximum for devices of V_{BR}>200V.

PACKAGE DIMENSIONS

P600



ORDERING INFORMATION

5 KP □□□ C A

- A — 5% Voltage Tolerance
- C — Bi-Directional
- □□□ — Stand-off Voltage

PACKAGING

Part Number	Component Package	Quantity
5KPxxxA/CA	P600	500

ELECTRICAL CHARACTERISTICS

5KP Device	Reverse Stand-off Voltage	Breakdown Voltage Min.@I_T	Breakdown Voltage Max.@I_T	Test Current	Maximum Clamping Voltage @I_{ppm}	Maximum Peak Pulse Current	Maximum Reverse Leakage @V_{RWM}
	V_{RWM}(V)	$V_{BR\ Min.}$(V)	$V_{BR\ Max.}$(V)	I_T (mA)	V_C (V)	I_{ppm} (A)	I_R (uA)
5KP5.0A/CA	5.0	6.40	7.00	50	9.2	554.3	5000
5KP6.0A/CA	6.0	6.67	7.37	50	10.3	495.1	5000
5KP6.5A/CA	6.5	7.22	7.98	50	11.2	455.4	2000
5KP7.0A/CA	7.0.	7.78	8.60	50	12.0	425.0	1000
5KP7.5A/CA	7.5	8.33	9.83	5	12.9	395.3	250
5KP8.0A/CA	8.0	8.89	9.21	5	13.6	375.0	150
5KP8.5A/CA	8.5	9.44	10.40	5	14.4	354.2	50
5KP9.0A/CA	9.0	10.00	11.10	5	15.4	331.2	20
5KP10A/CA	10.0	11.10	12.30	5	17.0	300.0	15
5KP11A/CA	11.0	12.20	13.50	5	18.2	280.2	2
5KP12A/CA	12.0	13.30	14.70	5	19.9	256.3	2
5KP13A/CA	13.0	14.40	15.90	5	21.5	237.2	2
5KP14A/CA	14.0	15.60	17.20	5	23.2	219.8	2
5KP15A/CA	15.0	16.70	18.50	5	24.4	209.0	2
5KP16A/CA	16.0	17.80	19.70	5	26.0	196.2	2
5KP17A/CA	17.0	18.90	20.90	5	27.6	184.8	2
5KP18A/CA	18.0	20.00	22.10	5	29.2	174.7	2
5KP20A/CA	20.0	22.20	24.50	5	32.4	157.4	2
5KP22A/CA	22.0	24.00	26.90	5	35.5	143.7	2
5KP24A/CA	24.0	26.70	29.50	5	38.9	131.1	2
5KP26A/CA	26.0	28.90	31.90	5	42.1	121.1	2
5KP28A/CA	28.0	31.10	34.40	5	45.4	112.3	2
5KP30A/CA	30.0	33.30	36.80	5	48.4	105.4	2
5KP33A/CA	33.0	36.70	40.60	5	53.3	95.7	2

ELECTRICAL CHARACTERISTICS

5KP Device	Reverse Stand-off Voltage	Breakdown Voltage Min.@I_T	Breakdown Voltage Max.@I_T	Test Current	Maximum Clamping Voltage @I_{ppm}	Maximum Peak Pulse Current	Maximum Reverse Leakage @V_{RWM}
	V_{RWM}(V)	$V_{BR\ Min.}$(V)	$V_{BR\ Max.}$(V)	I_T (mA)	V_C (V)	I_{ppm} (A)	I_R (uA)
5KP36A/CA	36.0	40.00	44.20	5	58.1	87.8	2
5KP40A/CA	40.0	44.40	49.10	5	64.5	79.1	2
5KP43A/CA	43.0	47.80	52.80	5	69.4	73.5	2
5KP45A/CA	45.0	50.00	55.30	5	72.7	70.2	2
5KP48A/CA	48.0	53.30	58.90	5	77.4	65.9	2
5KP51A/CA	51.0	56.70	62.70	5	82.4	61.9	2
5KP54A/CA	54.0	60.00	66.30	5	87.1	58.6	2
5KP58A/CA	58.0	64.40	71.50	5	93.6	54.5	2
5KP60A/CA	60.0	66.70	73.70	5	96.8	52.7	2
5KP64A/CA	64.0	71.10	78.60	5	103.0	49.5	2
5KP70A/CA	70.0	77.80	86.00	5	113.0	45.1	2
5KP75A/CA	75.0	83.30	92.10	5	121.0	42.1	2
5KP78A/CA	78.0	86.70	95.80	5	126.0	40.5	2
5KP85A/CA	85.0	94.40	104.00	5	137.0	37.2	2
5KP90A/CA	90.0	100.00	111.00	5	146.0	34.9	2
5KP100A/CA	100.0	110.00	123.00	5	162.0	31.5	2
5KP110A/CA	110.0	122.00	135.00	5	177.0	28.8	2
5KP120A/CA	120.0	133.00	147.00	5	193.0	26.4	2
5KP130A/CA	130.0	144.00	159.00	5	209.0	24.4	2
5KP150A/CA	150.0	167.00	185.00	5	243.0	21.0	2
5KP160A/CA	160.0	178.00	197.00	5	259.0	19.7	2
5KP170A/CA	170.0	189.00	209.00	5	275.0	18.5	2
5KP180A/CA	180.0	200.00	221.00	5	292.0	17.5	2
5KP190A/CA	190.0	211.00	233.00	5	310.0	16.5	2
5KP200A/CA	200.0	222.00	246.00	5	329.2	15.5	2
5KP210A/CA	210.0	233.00	258.00	5	349.5	14.6	2
5KP220A/CA	220.0	244.00	270.00	5	371.1	13.7	2
5KP250A/CA	250.0	277.00	306.00	5	425.0	12.0	2

TYPICAL CHARACTERISTICS

