FEATURES



P600

- Glass passivated junction.
- 3000W Peak Pulse Power capability on 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 2μA 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 T_A=25°C unless otherwise specified..

Type Number	Symbol	Value	Units
Peak Pulse Power Dissipation with 10/1000μs waveform (Note 1）	P_{PPM}	3000	Watts
Steady State Power Dissipation on infinite heat sink at T_L= 75°C（Fig.5）	P_D	7.0	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Unidirectional only (Note 2)	I_{FSM}	300	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

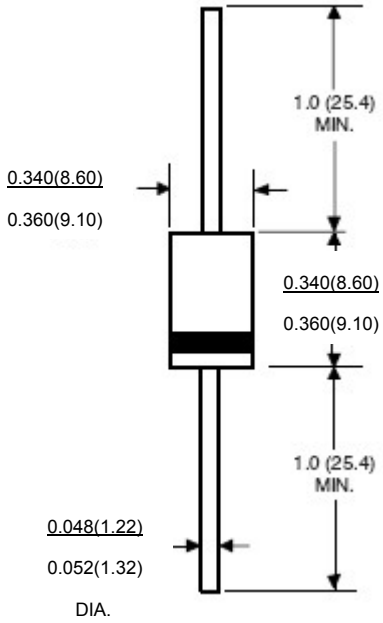
Notes : 1. Non-repetitive current pulse and derated above T_A= 25°C.

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

3 KP □□□ C A

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

PACKAGING

Part Number	Component Package	Quantity
3KPxxxA/CA	P600	500

ELECTRICAL CHARACTERISTICS

3KP 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)
3KP5.0A/CA	5.0	6.40	7.00	50	9.2	326.1	5000
3KP6.0A/CA	6.0	6.67	7.37	50	10.3	291.3	5000
3KP6.5A/CA	6.5	7.22	7.98	50	11.2	267.9	2000
3KP7.0A/CA	7.0.	7.78	8.60	50	12.0	250.0	1000
3KP7.5A/CA	7.5	8.33	9.83	5	12.9	232.6	250
3KP8.0A/CA	8.0	8.89	9.21	5	13.6	220.6	150
3KP8.5A/CA	8.5	9.44	10.40	5	14.4	208.3	50
3KP9.0A/CA	9.0	10.00	11.10	5	15.4	194.8	20
3KP10A/CA	10.0	11.10	12.30	5	17.0	176.5	15
3KP11A/CA	11.0	12.20	13.50	5	18.2	164.8	2
3KP12A/CA	12.0	13.30	14.70	5	19.9	150.8	2
3KP13A/CA	13.0	14.40	15.90	5	21.5	139.5	2
3KP14A/CA	14.0	15.60	17.20	5	23.2	129.3	2
3KP15A/CA	15.0	16.70	18.50	5	24.4	129.3	2
3KP16A/CA	16.0	17.80	19.70	5	26.0	123.0	2
3KP17A/CA	17.0	18.90	20.90	5	27.6	115.4	2
3KP18A/CA	18.0	20.00	22.10	5	29.2	108.7	2
3KP20A/CA	20.0	22.20	24.50	5	32.4	102.7	2
3KP22A/CA	22.0	24.00	26.90	5	35.5	92.6	2
3KP24A/CA	24.0	26.70	29.50	5	38.9	84.5	2
3KP26A/CA	26.0	28.90	31.90	5	42.1	77.1	2
3KP28A/CA	28.0	31.10	34.40	5	45.4	71.3	2
3KP30A/CA	30.0	33.30	36.80	5	48.4	66.1	2
5KP33A/CA	33.0	36.70	40.60	5	53.3	62.0	2

ELECTRICAL CHARACTERISTICS

3KP 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)
3KP36A/CA	36.0	40.00	44.20	5	58.1	51.6	2
3KP40A/CA	40.0	44.40	49.10	5	64.5	46.5	2
3KP43A/CA	43.0	47.80	52.80	5	69.4	43.2	2
3KP45A/CA	45.0	50.00	55.30	5	72.7	41.3	2
3KP48A/CA	48.0	53.30	58.90	5	77.4	38.8	2
3KP51A/CA	51.0	56.70	62.70	5	82.4	36.4	2
3KP54A/CA	54.0	60.00	66.30	5	87.1	34.4	2
3KP58A/CA	58.0	64.40	71.50	5	93.6	32.1	2
3KP60A/CA	60.0	66.70	73.70	5	96.8	31.0	2
3KP64A/CA	64.0	71.10	78.60	5	103.0	29.1	2
3KP70A/CA	70.0	77.80	86.00	5	113.0	26.5	2
3KP75A/CA	75.0	83.30	92.10	5	121.0	24.8	2
3KP78A/CA	78.0	86.70	95.80	5	126.0	23.8	2
3KP85A/CA	85.0	94.40	104.00	5	137.0	21.9	2
3KP90A/CA	90.0	100.00	111.00	5	146.0	20.5	2
3KP100A/CA	100.0	110.00	123.00	5	162.0	18.5	2
3KP110A/CA	110.0	122.00	135.00	5	177.0	16.9	2
3KP120A/CA	120.0	133.00	147.00	5	193.0	15.5	2
3KP130A/CA	130.0	144.00	159.00	5	209.0	14.4	2
3KP150A/CA	150.0	167.00	185.00	5	243.0	12.3	2
3KP160A/CA	160.0	178.00	197.00	5	259.0	11.6	2
3KP170A/CA	170.0	189.00	209.00	5	275.0	10.9	2
3KP180A/CA	180.0	200.00	221.00	5	292.0	10.4	2
3KP190A/CA	190.0	211.00	233.00	5	310.0	9.7	2
3KP200A/CA	200.0	222.00	246.00	5	329.2	9.1	2
3KP210A/CA	210.0	233.00	258.00	5	349.5	8.6	2
3KP220A/CA	220.0	244.00	270.00	5	371.1	8.1	2

TYPICAL CHARACTERISTICS

