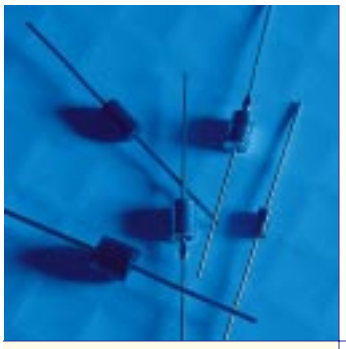
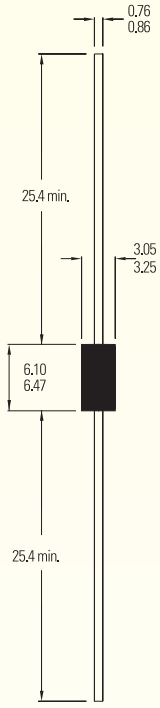


P6KE6.8 – P6KE400CA *Series*

CRYDOM
Control over power



All dimensions in mm

Invisible Protection

When no problems exist, Crydom TVS Diodes are totally invisible to the circuits they're protecting. But when potentially damaging transients occur, they provide high-speed "clamping" to prevent damage – and then return to their electronically invisible state.

600 WATT AXIAL TRANSIENT VOLTAGE SUPPRESSORS

Protect sensitive electronics against voltage transients induced by electrostatic discharge (ESD), inductive load switching, and lightning. Ideal for the protection of I/O interfaces, V_{CC} bus, and other integrated circuits.

FEATURES

- Glass passivated junction
- Stand-off voltage range: 6.8-400 V
- Excellent clamping capability
- Uni-directional and bi-directional
- 100% surge tested
- UL listed

MAXIMUM RATINGS

- Peak pulse power (P_{PK}): 600 watts (10 X 1000 µs)
- 1.5 watt steady state
- Response time: 1 X 10^{-12} s (theoretical)
- Forward surge rating: 100 A, 8.3 ms half sine wave (uni-directional devices only)
- Operating and storage temperature: -55°C to +175°C

MECHANICAL CHARACTERISTICS

- Case: DO15, molded plastic over glass passivated junction
- Terminals: Axial leads, solderable per MIL-STD-202 Method 208
- Marking: Cathode band (positive terminal, uni-directional devices only), device code, logo
- Weight: 1.2 grams (approx.)

P6KE6.8 – P6KE400CA *Series*

PART NUMBER (UNI)	PART NUMBER (BI)	REVERSE STAND-OFF VOLTAGE V_R (V)	BREAKDOWN VOLTAGE V_{BR} (V) @ I_T			MAXIMUM REVERSE LEAKAGE I_R @ V_R (µA)	MAXIMUM CLAMPING VOLTAGE V_C @ I_{PP} (V)	MAXIMUM PEAK PULSE CURRENT I_{PP} (A)	MAX. VOLTAGE TEMPERATURE VARIATION OF V_{BR} (%/°C)
			MIN.	MAX.	(mA)				
*P6KE6.8	*P6KE6.8C	5.5	6.12	7.48	10.0	1000.0	10.8	56.0	0.057
*P6KE6.8A	*P6KE6.8CA	5.8	6.45	7.14	10.0	1000.0	10.5	57.0	0.057
P6KE7.5	P6KE7.5C	6.05	6.75	8.25	10.0	500.0	11.7	51.0	0.061
P6KE7.5A	P6KE7.5CA	6.4	7.13	7.88	10.0	500.0	11.3	53.0	0.061
P6KE8.2	P6KE8.2C	6.63	7.38	9.02	10.0	200.0	12.5	48.0	0.065
P6KE8.2A	P6KE8.2CA	7.02	7.79	8.61	10.0	200.0	12.1	50.0	0.065
P6KE9.1	P6KE9.1C	7.37	8.19	10.0	1.0	50.0	13.8	44.0	0.068
P6KE9.1A	P6KE9.1CA	7.78	8.65	9.55	1.0	50.0	13.4	45.0	0.068
P6KE10	P6KE10C	8.1	9.00	11.0	1.0	10.0	15.0	40.0	0.073
P6KE10A	P6KE10CA	8.55	9.5	10.5	1.0	10.0	14.5	41.0	0.073
P6KE11	P6KE11C	8.92	9.9	12.1	1.0	5.0	16.2	37.0	0.075
P6KE11A	P6KE11CA	9.4	10.5	11.6	1.0	5.0	15.6	38.0	0.075
*P6KE12	P6KE12C	9.72	10.8	13.2	1.0	5.0	17.3	35.0	0.078
*P6KE12A	P6KE12CA	10.2	11.4	12.6	1.0	5.0	16.7	36.0	0.078
P6KE13	P6KE13C	10.5	11.7	14.3	1.0	5.0	19.0	32.0	0.081
P6KE13A	P6KE13CA	11.1	12.4	13.7	1.0	5.0	18.2	33.0	0.081
P6KE15	*P6KE15C	12.1	13.5	16.5	1.0	5.0	22.0	27.0	0.084
P6KE15A	*P6KE15CA	12.8	14.3	15.8	1.0	5.0	21.2	28.0	0.084
P6KE16	P6KE16C	12.9	14.4	17.6	1.0	5.0	23.5	26.0	0.086
P6KE16A	P6KE16CA	13.6	15.2	16.8	1.0	5.0	22.5	27.0	0.086
*P6KE18	*P6KE18C	14.5	16.2	19.8	1.0	5.0	26.5	23.0	0.088
*P6KE18A	*P6KE18CA	15.3	17.1	18.9	1.0	5.0	25.2	24.0	0.088
P6KE20	P6KE20C	16.2	18.0	22.0	1.0	5.0	29.1	21.0	0.09
P6KE20A	P6KE20CA	17.1	19.0	21.0	1.0	5.0	27.7	22.0	0.09
P6KE22	P6KE22C	17.8	19.8	24.2	1.0	5.0	31.9	19.0	0.092
P6KE22A	P6KE22CA	18.8	20.9	23.1	1.0	5.0	30.6	20.0	0.092
P6KE24	P6KE24C	19.4	21.6	26.4	1.0	5.0	34.7	17.0	0.094
P6KE24A	P6KE24CA	20.5	22.8	25.2	1.0	5.0	33.2	18.0	0.094
*P6KE27	P6KE27C	21.8	24.3	29.7	1.0	5.0	39.1	15.0	0.096
*P6KE27A	P6KE27CA	23.1	25.7	28.4	1.0	5.0	37.5	16.0	0.096
P6KE30	P6KE30C	24.3	27.0	33.0	1.0	5.0	43.5	14.0	0.097
P6KE30A	P6KE30CA	25.6	28.5	31.5	1.0	5.0	41.4	14.4	0.097
P6KE33	P6KE33C	26.8	29.7	36.3	1.0	5.0	47.7	12.6	0.098
P6KE33A	P6KE33CA	28.2	31.4	34.7	1.0	5.0	45.7	13.2	0.098
P6KE36	*P6KE36C	29.1	32.4	39.6	1.0	5.0	52.0	11.6	0.099
P6KE36A	*P6KE36CA	30.8	34.2	37.8	1.0	5.0	49.9	12.0	0.099
P6KE39	P6KE39C	31.6	35.1	42.9	1.0	5.0	56.4	10.5	0.10
P6KE39A	P6KE39CA	33.3	37.1	41.0	1.0	5.0	53.9	11.2	0.10
P6KE43	*P6KE43C	34.8	38.7	47.3	1.0	5.0	61.9	9.6	0.101
P6KE43A	*P6KE43CA	36.8	40.9	45.2	1.0	5.0	59.3	10.1	0.101
P6KE47	P6KE47C	38.1	42.3	51.7	1.0	5.0	67.8	8.9	0.101
P6KE47A	P6KE47CA	40.2	44.7	49.4	1.0	5.0	64.8	9.3	0.101

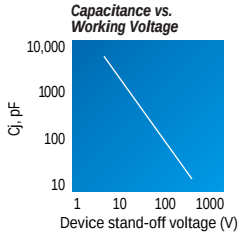
*Preferred voltages.

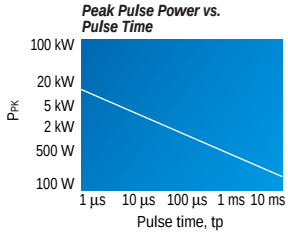
Note: Suffix “C” denotes bi-directional device. Suffix “A” denotes 5% tolerance device. No suffix denotes 10% tolerance device. For bi-directional devices having V_R of 10 V and under the I_R limit is doubled. V_F = 3.5 V max. for devices of nominal V_{BR} < 200 V, and V_F = 5.0 V max. for devices of nominal V_{BR} > 200 V. I_F = 50 A, 300 µs square wave. Electrical specifications @ 25°C.

P6KE6.8 – P6KE400CA *Series*

PART NUMBER (UNI)	PART NUMBER (BI)	REVERSE STAND-OFF VOLTAGE V_R (V)	BREAKDOWN VOLTAGE V_{BR} (V) @ I_T			MAXIMUM REVERSE LEAKAGE I_R @ V_R (µA)	MAXIMUM CLAMPING VOLTAGE V_C @ I_{PP} (V)	MAXIMUM PEAK PULSE CURRENT I_{PP} (A)	MAX. VOLTAGE TEMPERATURE VARIATION OF V_{BR} (%/°C)
			MIN.	MAX.	(mA)				
P6KE51	P6KE51C	41.3	45.9	56.1	1.0	5.0	73.5	8.2	0.102
P6KE51A	P6KE51CA	43.6	48.5	53.6	1.0	5.0	70.1	8.6	0.102
P6KE56	P6KE56C	45.4	50.4	61.6	1.0	5.0	80.5	7.4	0.103
P6KE56A	P6KE56CA	47.8	53.2	58.8	1.0	5.0	77.0	7.8	0.103
P6KE62	P6KE62C	50.2	55.8	68.2	1.0	5.0	89.0	6.8	0.104
P6KE62A	P6KE62CA	53.0	58.9	65.1	1.0	5.0	85.0	7.1	0.104
P6KE68	P6KE68C	55.1	61.2	74.8	1.0	5.0	98.0	6.1	0.104
P6KE68A	P6KE68CA	58.1	64.6	71.4	1.0	5.0	92.0	6.5	0.104
P6KE75	P6KE75C	60.7	67.5	82.5	1.0	5.0	108.0	5.5	0.105
P6KE75A	P6KE75CA	64.1	71.3	78.8	1.0	5.0	103.0	5.8	0.105
P6KE82	P6KE82C	66.4	73.8	90.2	1.0	5.0	118.0	5.1	0.105
P6KE82A	P6KE82CA	70.1	77.9	86.1	1.0	5.0	113.0	5.3	0.105
P6KE91	P6KE91C	73.7	81.9	100.0	1.0	5.0	131.0	4.5	0.106
P6KE91A	P6KE91CA	77.8	86.5	95.5	1.0	5.0	125.0	4.8	0.106
P6KE100	P6KE100C	81.0	90.0	110.0	1.0	5.0	144.0	4.2	0.106
P6KE100A	P6KE100CA	85.5	95.0	105.0	1.0	5.0	137.0	4.4	0.106
P6KE110	P6KE110C	89.2	99.0	121.0	1.0	5.0	158.0	3.8	0.107
P6KE110A	P6KE110CA	94.0	105.0	116.0	1.0	5.0	152.0	4.0	0.107
P6KE120	P6KE120C	97.2	108.0	132.0	1.0	5.0	173.0	3.5	0.107
P6KE120A	P6KE120CA	102.0	114.0	126.0	1.0	5.0	165.0	3.6	0.107
P6KE130	P6KE130C	105.0	117.0	143.0	1.0	5.0	187.0	3.2	0.107
P6KE130A	P6KE130CA	111.0	124.0	137.0	1.0	5.0	179.0	3.3	0.107
P6KE150	P6KE150C	121.0	135.0	165.0	1.0	5.0	215.0	2.8	0.108
P6KE150A	P6KE150CA	128.0	143.0	158.0	1.0	5.0	207.0	2.9	0.108
P6KE160	P6KE160C	130.0	144.0	176.0	1.0	5.0	230.0	2.6	0.108
P6KE160A	P6KE160CA	136.0	152.0	168.0	1.0	5.0	219.0	2.7	0.108
P6KE170	P6KE170C	138.0	153.0	187.0	1.0	5.0	244.0	2.5	0.108
P6KE170A	P6KE170CA	145.0	162.0	179.0	1.0	5.0	234.0	2.6	0.108
P6KE180	P6KE180C	146.0	162.0	198.0	1.0	5.0	258.0	2.3	0.108
P6KE180A	P6KE180CA	154.0	171.0	189.0	1.0	5.0	246.0	2.4	0.108
P6KE200	*P6KE200C	162.0	180.0	220.0	1.0	5.0	287.0	2.1	0.108
P6KE200A	*P6KE200CA	171.0	190.0	210.0	1.0	5.0	274.0	2.2	0.108
P6KE220	P6KE220C	175.0	198.0	242.0	1.0	5.0	344.0	1.75	0.108
P6KE220A	P6KE220CA	185.0	209.0	231.0	1.0	5.0	328.0	1.83	0.108
P6KE250	P6KE250C	202.0	225.0	275.0	1.0	5.0	360.0	1.67	0.11
P6KE250A	P6KE250CA	214.0	237.0	263.0	1.0	5.0	344.0	1.75	0.11
P6KE300	P6KE300C	243.0	270.0	330.0	1.0	5.0	430.0	1.4	0.11
P6KE300A	P6KE300CA	256.0	285.0	315.0	1.0	5.0	414.0	1.45	0.11
P6KE350	P6KE350C	284.0	315.0	385.0	1.0	5.0	504.0	1.2	0.11
P6KE350A	P6KE350CA	300.0	332.0	368.0	1.0	5.0	482.0	1.25	0.11
P6KE400	P6KE400C	324.0	360.0	440.0	1.0	5.0	574.0	1.05	0.11
P6KE400A	P6KE400CA	342.0	380.0	420.0	1.0	5.0	548.0	1.1	0.11

P6KE6.8 – P6KE400CA *Series*





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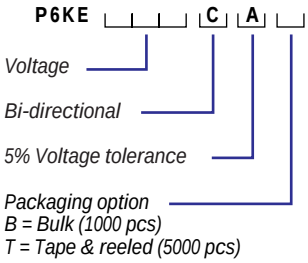

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About Crydom

Over the years Crydom has become the supplier of choice for advanced, high-quality products like those featured here. It's the result of our teams of design and production engineers – material, production control, and quality assurance experts, and more – working seamlessly together to create, produce, and deliver superior components and products that satisfy the most demanding environmental and performance requirements. We focus on timely delivery and competitive pricing aimed at meeting your needs and helping you succeed in today's fast-paced, fast-changing global markets.

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CRYDOM
Control over power