New Jersey Semi-Conductor Products, Inc.

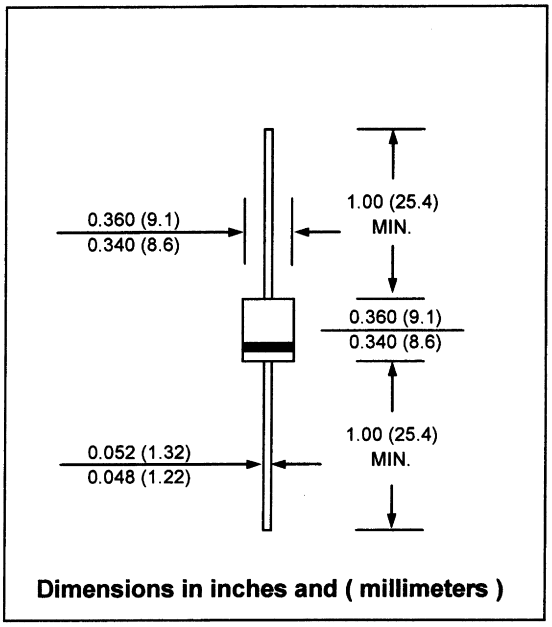
20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

30KP SERIES

TRANSIENT VOLTAGE SUPPRESSOR

V_R : 33 - 400 Volts
P_{PK} : 30,000 Watts



Dimensions in inches and (millimeters)

FEATURES :

* Excellent Clamping Capability
* Fast Response Time
* Low Leakage Current
* Pb / RoHS Free

MECHANICAL DATA

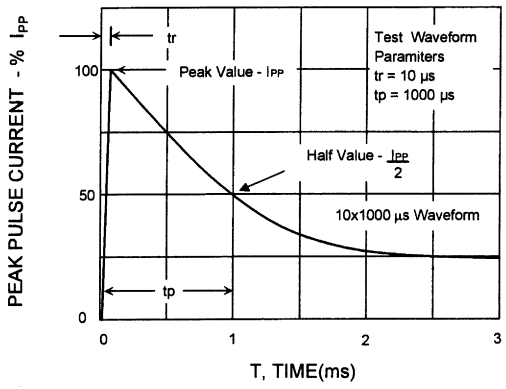
* Case : Void-free molded plastic body
* Epoxy : UL94V-O rate flame retardant
* Lead : Axial lead

* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 2.1 grams

MAXIMUM RATINGS (Ta = 25 °C)

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation (10 x 1000μs, see Fig.1)	P_{PK}	30,000	W
Steady State Power Dissipation	P_D	7	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Uni-directional devices only)	I_{FSM}	250	A
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 150	°C

Fig. 1 - Pulse Wave Form



ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Part Number (Uni-directional)	Part Number (Bi-directional)	Reverse Stand Off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Maximum $V_{(BR)}$ Temperature Coefficient
		V_{WM}	V_{BR} (V)		$I_{(BR)}$	I_D	V_C	I_{PP}	$\alpha_{V(BR)}$
		(V)	Min.	Max.	(mA)	(μA)	(V)	(A)	(mV/°C)
30KP33	**30KP33C**	33	36.7	44.9	50	5000	64.6	496	42
30KP33A	**30KP33CA**	33	36.7	40.6	50	5000	58.6	548	38
30KP36	**30KP36C**	36	40.0	48.9	50	5000	68.2	454	46
30KP36A	**30KP36CA**	36	40.0	44.2	50	5000	61.8	502	41
30KP40	**30KP40C**	40	44.4	54.3	20	1500	75.8	412	51
30KP40A	**30KP40CA**	40	44.4	49.1	20	1500	68.6	456	46
30KP43	**30KP43C**	43	47.8	58.4	10	500	79.0	380	55
30KP43A	**30KP43CA**	43	47.8	52.8	10	500	71.0	430	50
30KP45	**30KP45C**	45	50.0	61.1	5	150	80.7	372	57
30KP45A	**30KP45CA**	45	50.0	55.3	5	150	73.0	410	52
30KP48	**30KP48C**	48	53.3	65.1	5	150	85.9	350	62
30KP48A	**30KP48CA**	48	53.3	58.9	5	150	77.7	386	56
30KP51	**30KP51C**	51	56.7	69.3	5	50	91.5	328	66
30KP51A	**30KP51CA**	51	56.7	62.7	5	50	82.8	362	60
30KP54	**30KP54C**	54	60.0	73.3	5	25	96.8	310	70
30KP54A	**30KP54CA**	54	60.0	66.3	5	25	87.5	342	63
30KP58	**30KP58C**	58	64.4	78.7	5	15	104	288	76
30KP58A	**30KP58CA**	58	64.4	71.2	5	15	94	320	68
30KP60	**30KP60C**	60	66.7	81.5	5	15	107	280	78
30KP60A	**30KP60CA**	60	66.7	73.7	5	15	97.3	304	71
30KP64	**30KP64C**	64	71.1	86.9	5	10	115	260	84
30KP64A	**30KP64CA**	64	71.1	78.6	5	10	104	288	76
30KP70	**30KP70C**	70	77.8	95.1	5	10	126	238	92
30KP70A	**30KP70CA**	70	77.8	86.0	5	10	114	264	83
30KP75	**30KP75C**	75	83.3	102	5	10	135	222	100
30KP75A	**30KP75CA**	75	83.3	92.1	5	10	122	246	89
30KP78	**30KP78C**	78	86.7	106	5	10	140	214	104
30KP78A	**30KP78CA**	78	86.7	95.8	5	10	126	238	93
30KP85	**30KP85C**	85	94.4	115	5	10	152	198	113
30KP85A	**30KP85CA**	85	94.4	104	5	10	137	218	102
30KP90	**30KP90C**	90	100	122	5	10	160	188	120
30KP90A	**30KP90CA**	90	100	111	5	10	146	206	109
30KP100	**30KP100C**	100	111	136	5	10	179	168	134
30KP100A	**30KP100CA**	100	111	123	5	10	162	186	121
30KP110	**30KP110C**	110	122	149	5	10	196	154	147
30KP110A	**30KP110CA**	110	122	135	5	10	178	168	133
30KP120	**30KP120C**	120	133	163	5	10	214	140	161
30KP120A	**30KP120CA**	120	133	147	5	10	193	156	145
30KP130	**30KP130C**	130	144	176	5	10	231	130	174
30KP130A	**30KP130CA**	130	144	159	5	10	209	142	157

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Part Number (Uni-directional)	Part Number (Bi-directional)	Reverse Stand Off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current	Maximum $V_{(BR)}$ Temperature Coefficient
		V_{WM}	V_{BR} (V)		$I_{(BR)}$	I_D	V_C	I_{PP}	$\alpha_{V(BR)}$
		(V)	Min.	Max.	(mA)	(μA)	(V)	(A)	(mV/°C)
30KP150	**30KP150C**	150	167	204	5	10	268	112	202
30KP150A	**30KP150CA**	150	167	185	5	10	243	124	183
30KP160	**30KP160C**	160	178	218	5	10	287	104	216
30KP160A	**30KP160CA**	160	178	197	5	10	259	116	195
30KP170	**30KP170C**	170	189	231	5	10	304	98	229
30KP170A	**30KP170CA**	170	189	209	5	10	275	110	207
30KP180	**30KP180C**	180	200	244	5	10	321	94	242
30KP180A	**30KP180CA**	180	200	221	5	10	291	104	219
30KP200	**30KP200C**	200	222	271	5	10	356	84	269
30KP200A	**30KP200CA**	200	222	245	5	10	322	94	243
30KP220	**30KP220C**	220	245	299	5	10	393	76	297
30KP220A	**30KP220CA**	220	245	271	5	10	356	84	269
30KP250A	**30KP250CA**	250	278	308	5	10	403	74	306
30KP260A	**30KP260CA**	260	289	320	5	10	419	71	318
30KP280A	**30KP280CA**	280	311	345	5	10	451	66	344
30KP300A	**30KP300CA**	300	333	369	5	10	483	62	368
30KP350A	**30KP350CA**	350	389	431	5	10	564	53	430
30KP400A	**30KP400CA**	400	444	492	5	10	644	46	490

Note:

(1) Suffix " A " denotes ± 5% tolerance device , no suffix denotes a ± 10% tolerance device.

Fig. 2 - Peak Pulse Power vs. Pulse Time

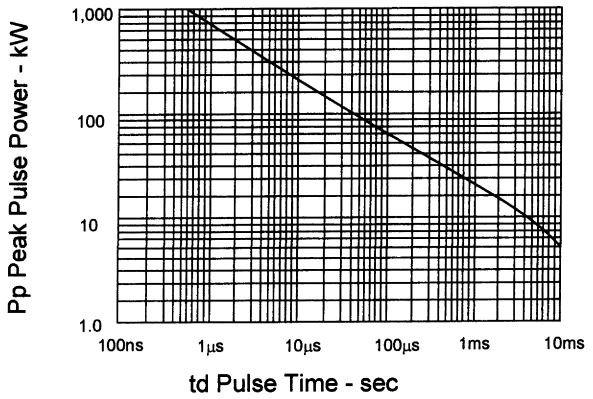


Fig. 3 - Typical Capacitance vs. Breakdown Voltage

