

AS50KP36C ~ AS50KP400CA

V_{WM} : 36 - 400 Volts

P_{PK} : 50,000 Watts

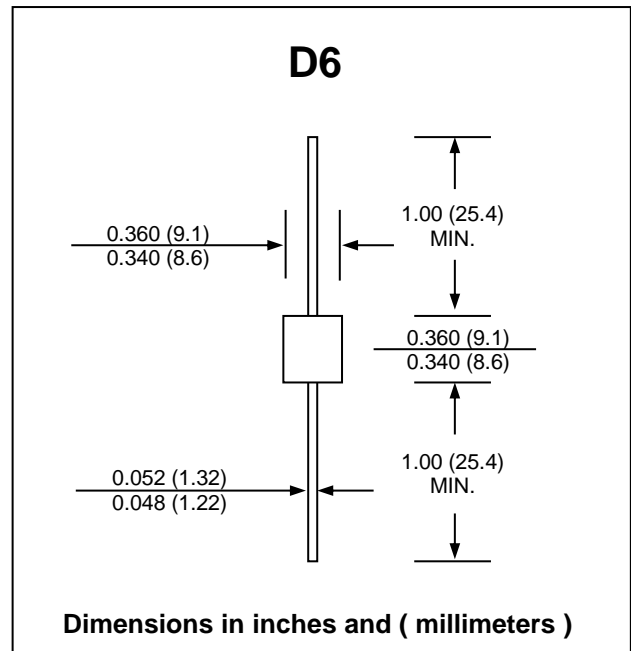
FEATURES :

- * Aviation Application
- * AEC-Q101 Qualified
- * Glass passivated junction chip
- * Excellent Clamping Capability
- * Fast Response Time
- * Low Leakage Current
- * **Pb / RoHS Free**

MECHANICAL DATA

- * Case : Void-free molded plastic body
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202,
Method 208 guaranteed
- * Polarity : Color band denotes cathode end except Bipolar.
- * Mounting position : Any
- * Weight : 2.1 grams

BI-DIRECTION TRANSIENT VOLTAGE SUPPRESSORS



MAXIMUM RATINGS (T_a = 25 °C)

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation (10 x 1000μs, see Fig.2)	P _{PK}	50,000	W
Steady State Power Dissipation	P _D	8	W
Operating and Storage Temperature Range	T _J , T _{STG}	- 55 to + 175	°C

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type No.	Reverse Stand Off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current
	V_{WM}	V_{BR} (V)		$I_{(BR)}$	I_D	V_C	I_{PP}
	(V)	Min.	Max.	(mA)	(μ A)	(V)	(A)
AS50KP36C	36	40.0	48.9	50	10000	68.2	733
AS50KP36CA	36	40.0	44.2	50	10000	61.8	809
AS50KP40C	40	44.4	54.3	20	10000	75.8	659
AS50KP40CA	40	44.4	49.1	20	10000	68.6	728
AS50KP43C	43	47.8	58.4	10	10000	79.0	632
AS50KP43CA	43	47.8	52.8	10	10000	71.0	704
AS50KP45C	45	50.0	61.1	5	8000	80.7	619
AS50KP45CA	45	50.0	55.3	5	8000	73.0	684
AS50KP48C	48	53.3	65.1	5	8000	85.9	582
AS50KP48CA	48	53.3	58.9	5	8000	77.7	643
AS50KP51C	51	56.7	69.3	5	5000	91.5	546
AS50KP51CA	51	56.7	62.7	5	5000	82.8	603
AS50KP54C	54	60.0	73.3	5	5000	96.8	516
AS50KP54CA	54	60.0	66.3	5	5000	87.5	571
AS50KP58C	58	64.4	78.7	5	1500	104	480
AS50KP58CA	58	64.4	71.2	5	1500	94	531
AS50KP60C	60	66.7	81.5	5	500	107	467
AS50KP60CA	60	66.7	73.7	5	500	97.3	513
AS50KP64C	64	71.1	86.9	5	150	115	434
AS50KP64CA	64	71.1	78.6	5	150	104	480
AS50KP70C	70	77.8	95.1	5	150	126	396
AS50KP70CA	70	77.8	86.0	5	150	114	438
AS50KP75C	75	83.3	102	5	50	135	370
AS50KP75CA	75	83.3	92.1	5	50	122	409
AS50KP78C	78	86.7	106	5	25	140	357
AS50KP78CA	78	86.7	95.8	5	25	126	396
AS50KP85C	85	94.4	115	5	15	152	328
AS50KP85CA	85	94.4	104	5	15	137	364
AS50KP90C	90	100	122	5	15	160	312
AS50KP90CA	90	100	111	5	15	146	342
AS50KP100C	100	111	136	5	10	179	279
AS50KP100CA	100	111	123	5	10	162	308
AS50KP110C	110	122	149	5	10	196	255
AS50KP110CA	110	122	135	5	10	178	280
AS50KP120C	120	133	163	5	10	214	233
AS50KP120CA	120	133	147	5	10	193	259
AS50KP130C	130	144	176	5	10	231	216
AS50KP130CA	130	144	159	5	10	209	239
AS50KP150C	150	167	204	5	10	268	186
AS50KP150CA	150	167	185	5	10	243	205
AS50KP160C	160	178	218	5	10	287	174
AS50KP160CA	160	178	197	5	10	259	193
AS50KP170C	170	189	231	5	10	304	164
AS50KP170CA	170	189	209	5	10	275	181

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type No.	Reverse Stand Off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current
	V_{WM}	V_{BR} (V)		$I_{(BR)}$	I_D	V_C	I_{PP}
	(V)	Min.	Max.	(mA)	(μ A)	(V)	(A)
AS50KP180C	180	200	244	5	10	321	155
AS50KP180CA	180	200	221	5	10	291	171
AS50KP200C	200	222	271	5	10	356	140
AS50KP200CA	200	222	245	5	10	322	155
AS50KP220C	220	245	299	5	10	393	127
AS50KP220CA	220	245	271	5	10	356	140
AS50KP250CA	250	278	308	5	10	403	124
AS50KP260CA	260	289	320	5	10	419	119
AS50KP280CA	280	311	345	5	10	451	110
AS50KP300CA	300	333	369	5	10	483	103
AS50KP320CA	320	355	409	5	10	515	97
AS50KP350CA	350	389	431	5	10	564	88
AS50KP400CA	400	444	492	5	10	644	77

Note: (1) For bidirectional type having V_{WM} of 60 volts and less, the I_D limit is double.

Fig. 1 - Pulse Derating Curve

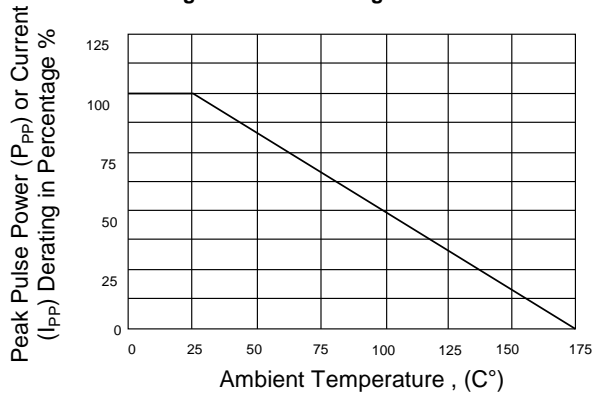


Fig. 3 - Peak Pulse Power vs. Pulse Time

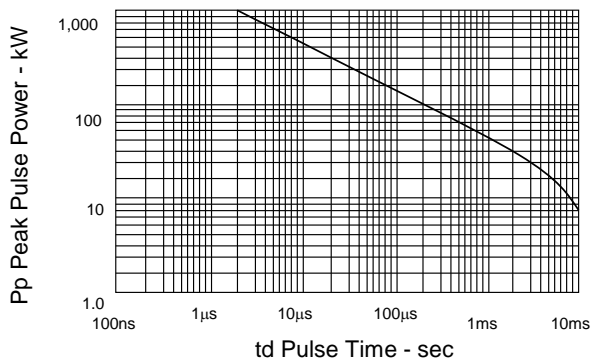


Fig. 2 - Pulse Wave Form

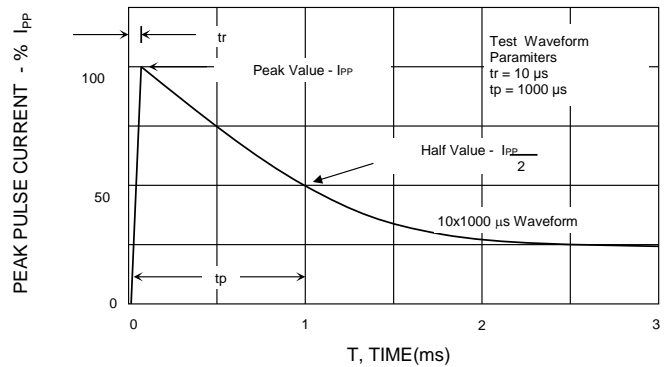


Fig. 4 - Typical Capacitance vs. Breakdown Voltage

