

AS50KP36 ~ AS50KP400A

V_{WM} : 36 - 400 Volts

P_{PK} : 50,000 Watts

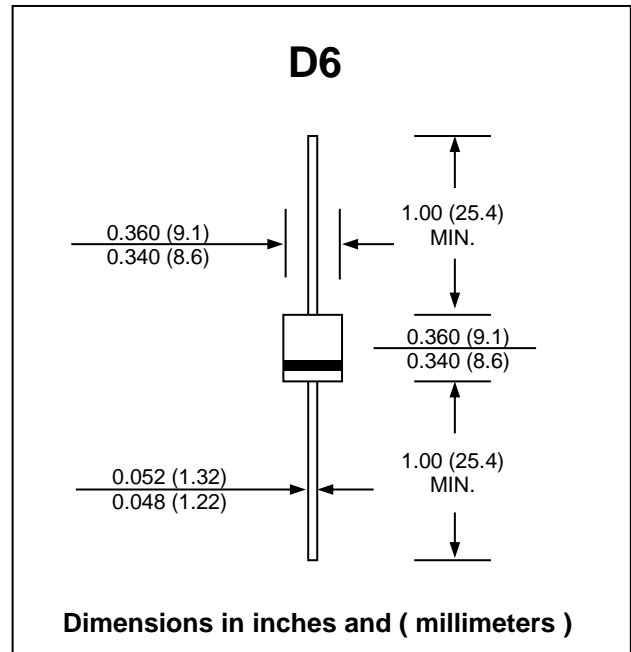
FEATURES :

- * 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

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)
AS50KP36	36	40.0	48.9	50	10000	68.2	733
AS50KP36A	36	40.0	44.2	50	10000	61.8	809
AS50KP40	40	44.4	54.3	20	10000	75.8	659
AS50KP40A	40	44.4	49.1	20	10000	68.6	728
AS50KP43	43	47.8	58.4	10	10000	79.0	632
AS50KP43A	43	47.8	52.8	10	10000	71.0	704
AS50KP45	45	50.0	61.1	5	8000	80.7	619
AS50KP45A	45	50.0	55.3	5	8000	73.0	684
AS50KP48	48	53.3	65.1	5	8000	85.9	582
AS50KP48A	48	53.3	58.9	5	8000	77.7	643
AS50KP51	51	56.7	69.3	5	5000	91.5	546
AS50KP51A	51	56.7	62.7	5	5000	82.8	603
AS50KP54	54	60.0	73.3	5	5000	96.8	516
AS50KP54A	54	60.0	66.3	5	5000	87.5	571
AS50KP58	58	64.4	78.7	5	1500	104	480
AS50KP58A	58	64.4	71.2	5	1500	94	531
AS50KP60	60	66.7	81.5	5	500	107	467
AS50KP60A	60	66.7	73.7	5	500	97.3	513
AS50KP64	64	71.1	86.9	5	150	115	434
AS50KP64A	64	71.1	78.6	5	150	104	480
AS50KP70	70	77.8	95.1	5	150	126	396
AS50KP70A	70	77.8	86.0	5	150	114	438
AS50KP75	75	83.3	102	5	50	135	370
AS50KP75A	75	83.3	92.1	5	50	122	409
AS50KP78	78	86.7	106	5	25	140	357
AS50KP78A	78	86.7	95.8	5	25	126	396
AS50KP85	85	94.4	115	5	15	152	328
AS50KP85A	85	94.4	104	5	15	137	364
AS50KP90	90	100	122	5	15	160	312
AS50KP90A	90	100	111	5	15	146	342
AS50KP100	100	111	136	5	10	179	279
AS50KP100A	100	111	123	5	10	162	308
AS50KP110	110	122	149	5	10	196	255
AS50KP110A	110	122	135	5	10	178	280
AS50KP120	120	133	163	5	10	214	233
AS50KP120A	120	133	147	5	10	193	259
AS50KP130	130	144	176	5	10	231	216
AS50KP130A	130	144	159	5	10	209	239
AS50KP150	150	167	204	5	10	268	186
AS50KP150A	150	167	185	5	10	243	205
AS50KP160	160	178	218	5	10	287	174
AS50KP160A	160	178	197	5	10	259	193
AS50KP170	170	189	231	5	10	304	164
AS50KP170A	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)
AS50KP180	180	200	244	5	10	321	155
AS50KP180A	180	200	221	5	10	291	171
AS50KP200	200	222	271	5	10	356	140
AS50KP200A	200	222	245	5	10	322	155
AS50KP220	220	245	299	5	10	393	127
AS50KP220A	220	245	271	5	10	356	140
AS50KP250A	250	278	308	5	10	403	124
AS50KP260A	260	289	320	5	10	419	119
AS50KP280A	280	311	345	5	10	451	110
AS50KP300A	300	333	369	5	10	483	103
AS50KP320A	320	355	409	5	10	515	97
AS50KP350A	350	389	431	5	10	564	88
AS50KP400A	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

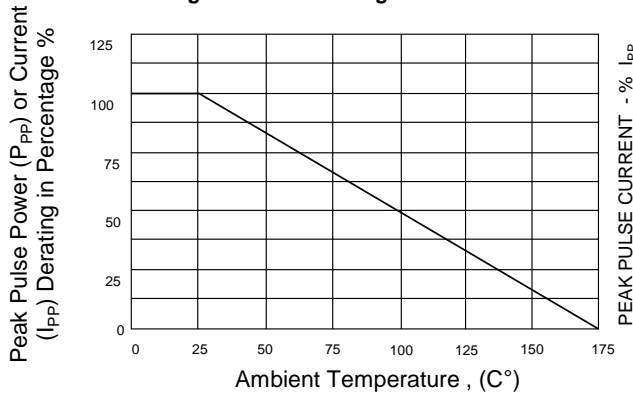


Fig. 3 - Peak Pulse Power vs. Pulse Time

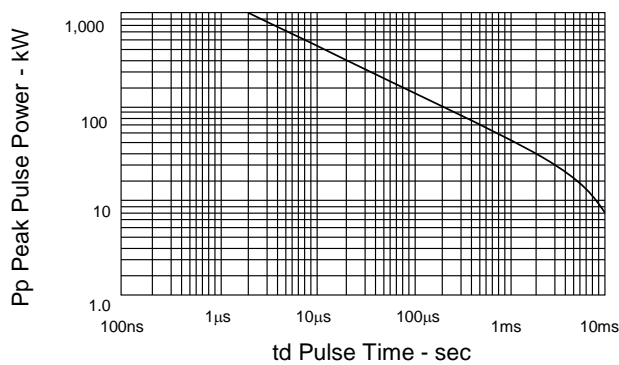


Fig. 2 - Pulse Wave Form

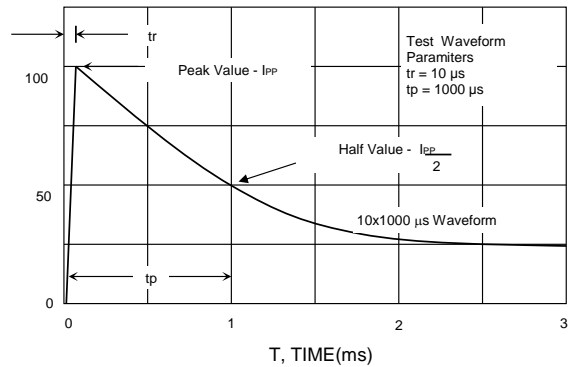


Fig. 4 - Typical Capacitance vs. Breakdown Voltage

