

5000W AXIAL LEAD TVS**Features**

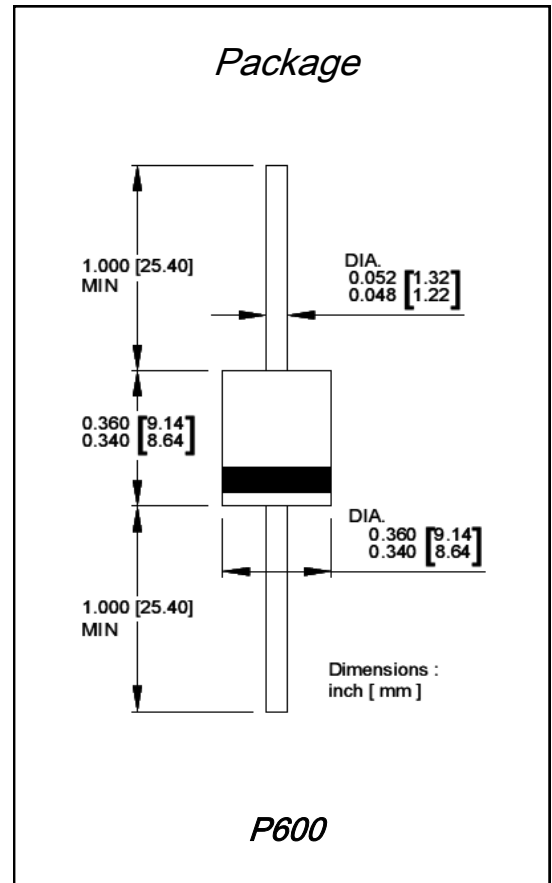
- ◆ Glass Passivated Chip
- ◆ Low Leakage
- ◆ Uni and Bidirectional Unit
- ◆ Excellent Clamping Capability
- ◆ Very Fast Response Time
- ◆ RoHS Compliant
- ◆ 5000 W peak pulse power capability with 10/1000us waveform, repetitive rate (duty cycle): 0.01 %

Application

- ◆ IPC
- ◆ Car Electronics
- ◆ Power Supply
- ◆ Smart Meters

Mechanical Characteristics

- ◆ Case: Molded Plastic
- ◆ Epoxy: UL 94V-0 rate flame retardant
- ◆ Lead: Solderable per MIL-STD-202, method 208 guaranteed
- ◆ Polarity: Color band denotes cathode end except Bi-directional parts
- ◆ Mounting position: Any



DEVICE CHARACTERISTICS

Maximum Rating			
Parameter	Symbol	Value	Units
Peak Power Dissipation With 10/1000us Waveform	P _{PP}	5000	Watt
Peak Pulse Current With 10/1000us Waveform	I _{PP}	-	A
Power Dissipation On Infinite Heatsink @ T _L = 75°C	P _D	8	Watt
Peak Forward Surge Current	I _{FSM}	500	A
Maximum Instantaneous Forward Voltage @ 50 A	V _F	3.5/5	V
Operating Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

ELECTRICAL CHARACTERISTICS @ 25°C								
Part Number	Part Number	Breakdown Voltage VBR @IT			IR @	V _{RWM}	I _{PP}	V _C @ I _{PP}
		Min (V)	Max (V)	IT (mA)	V _{RWM}	(uA)	(V)	(A)
5KP5.0A	5KP5.0CA	6.4	7	10	800	5	543.48	9.2
5KP6.0A	5KP6.0CA	6.67	7.37	10	800	6	485.44	10.3
5KP6.5A	5KP6.5CA	7.22	7.98	10	500	7	446.43	11.2
5KP7.0A	5KP7.0CA	7.78	8.6	10	200	7	416.67	12
5KP7.5A	5KP7.5CA	8.33	9.21	1	100	8	387.6	12.9
5KP8.0A	5KP8.0CA	8.89	9.83	1	50	8	367.65	13.6
5KP8.5A	5KP8.5CA	9.44	10.4	1	20	9	347.22	14.4
5KP9.0A	5KP9.0CA	10	11.1	1	10	9	324.68	15.4
5KP10A	5KP10CA	11.1	12.3	1	5	10	294.12	17
5KP11A	5KP11CA	12.2	13.5	1	5	11	274.73	18.2
5KP12A	5KP12CA	13.3	14.7	1	5	12	251.26	19.9
5KP13A	5KP13CA	14.4	15.9	1	5	13	232.56	21.5
5KP14A	5KP14CA	15.6	17.2	1	5	14	215.52	23.2
5KP15A	5KP15CA	16.7	18.5	1	5	15	204.92	24.4
5KP16A	5KP16CA	17.8	19.7	1	5	16	192.31	26
5KP17A	5KP17CA	18.9	20.9	1	5	17	181.16	27.6
5KP18A	5KP18CA	20	22.1	1	5	18	171.23	29.2
5KP19A	5KP19CA	21.1	23.3	1	5	19	162.44	30.8
5KP20A	5KP20CA	22.2	24.5	1	5	20	154.32	32.4
5KP22A	5KP22CA	24.4	26.9	1	5	22	140.85	35.5
5KP24A	5KP24CA	26.7	29.5	1	5	24	128.53	38.9

DEVICE CHARACTERISTICS

ELECTRICAL CHARACTERISTICS @ 25°C								
Part Number	Part Number	Breakdown Voltage VBR @IT			IR @ V _{RWM}	V _{RWM}	I _{PP}	V _C @ I _{PP}
		Min (V)	Max (V)	IT (mA)	(μ A)	(V)	(A)	(V)
5KP26A	5KP26CA	28.9	31.9	1	5	26	118.76	42.1
5KP28A	5KP28CA	31.1	34.4	1	5	28	110.13	45.4
5KP30A	5KP30CA	33.3	36.8	1	5	30	103.31	48.4
5KP33A	5KP33CA	36.7	40.6	1	5	33	93.81	53.3
5KP36A	5KP36CA	40	44.2	1	5	36	86.06	58.1
5KP40A	5KP40CA	44.4	49.1	1	5	40	77.52	64.5
5KP43A	5KP43CA	47.8	52.8	1	5	43	72.05	69.4
5KP45A	5KP45CA	50	55.3	1	5	45	68.78	72.7
5KP48A	5KP48CA	53.3	58.9	1	5	48	64.6	77.4
5KP51A	5KP51CA	56.7	62.7	1	5	51	60.68	82.4
5KP54A	5KP54CA	60	66.3	1	5	54	57.41	87.1
5KP58A	5KP58CA	64.4	71.2	1	5	58	53.42	93.6
5KP60A	5KP60CA	66.7	73.7	1	5	60	51.65	96.8
5KP64A	5KP64CA	71.1	78.6	1	5	64	48.54	103
5KP70A	5KP70CA	77.8	86	1	5	70	44.25	113
5KP75A	5KP75CA	83.3	92.1	1	5	75	41.32	121
5KP78A	5KP78CA	86.7	95.8	1	5	78	39.68	126
5KP80A	5KP80CA	88.8	97.6	1	5	80	38.58	129.6
5KP85A	5KP85CA	94.4	104	1	5	85	36.5	137
5KP90A	5KP90CA	100	111	1	5	90	34.25	146
5KP100A	5KP100CA	111	123	1	5	100	30.86	162
5KP110A	5KP110CA	122	135	1	5	110	28.25	177
5KP120A	5KP120CA	133	147	1	5	120	25.91	193
5KP130A	5KP130CA	144	159	1	5	130	23.92	209
5KP140A	5KP140CA	155	171	1	5	140	22.05	226.8
5KP150A	5KP150CA	167	185	1	5	150	20.58	243
5KP160A	5KP160CA	178	197	1	5	160	19.31	259
5KP170A	5KP170CA	189	209	1	5	170	18.18	275
5KP180A	5KP180CA	200	220	1	5	180	17.15	291.6
5KP190A	5KP190CA	211	232	1	5	190	16.24	307.8
5KP200A	5KP200CA	224	247	5	5	200	15.43	324
5KP210A	5KP210CA	233	258	5	5	210	14.31	349.5
5KP220A	5KP220CA	246	272	5	5	220	14.04	356
5KP250A	5KP250CA	279	309	5	5	250	12.35	405
5KP300A	5KP300CA	335	371	5	5	300	10.29	486
5KP350A	5KP350CA	391	432	5	5	350	8.82	567
5KP400A	5KP400CA	447	494	5	5	400	7.72	648
5KP440A	5KP440CA	492	543	5	5	440	7.01	713

RATING CURVES

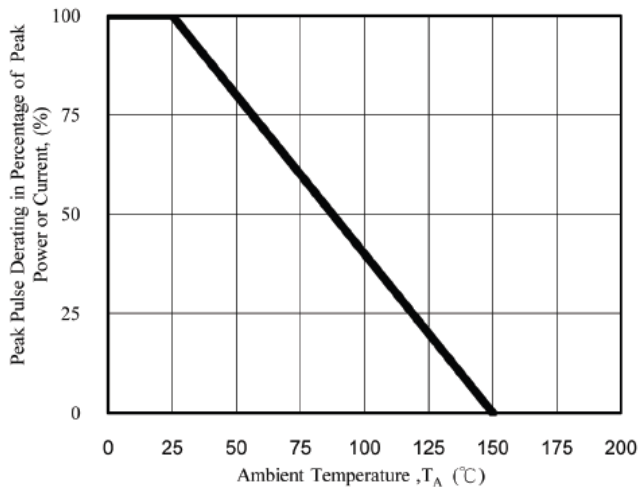


Fig. 1 - Pulse Derating Curve

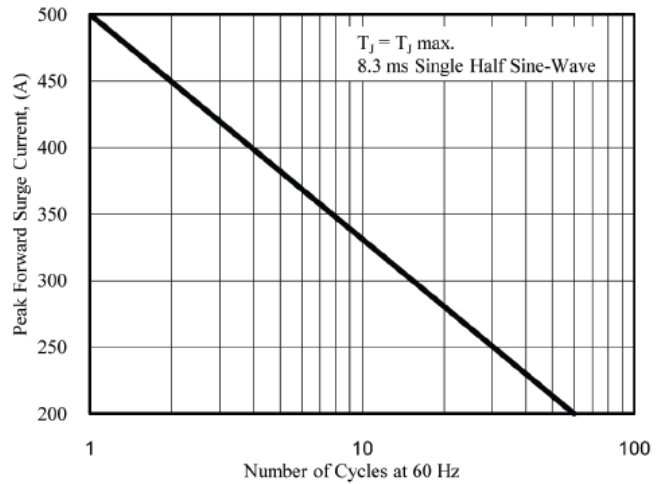


Fig. 2 - Maximum Non-Repetitive Surge Current

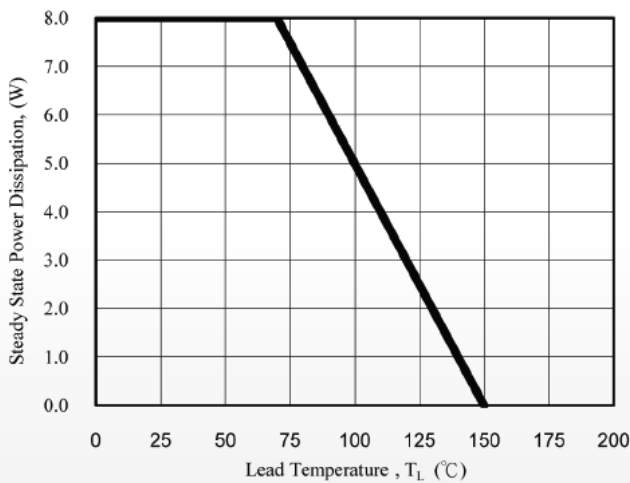


Fig. 3 - Steady State Power Derating Curve

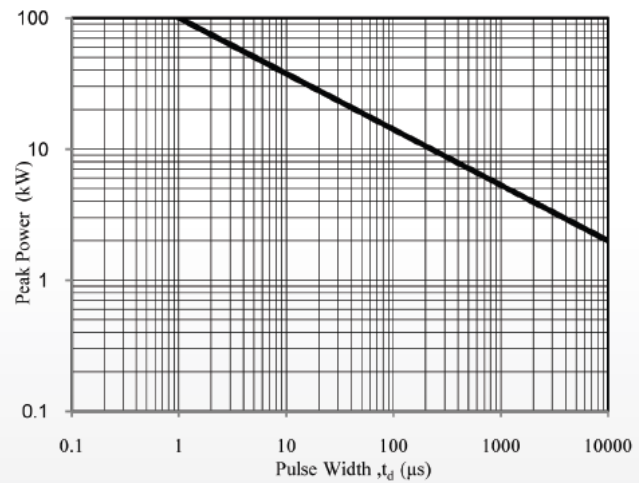


Fig. 4 - Peak Pulse Power Rating Curve

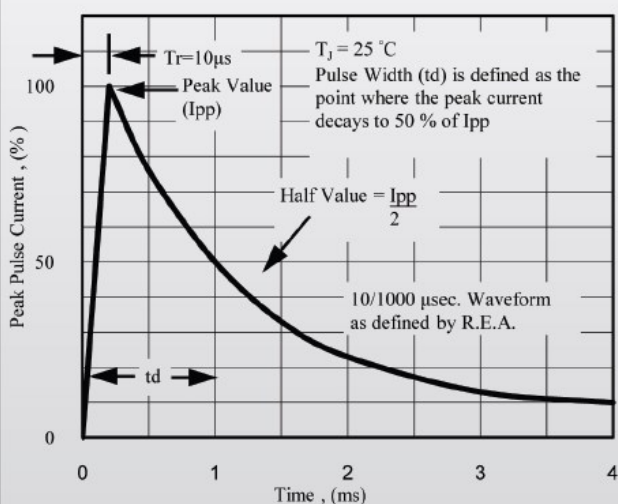


Fig. 5 - Pulse Waveform

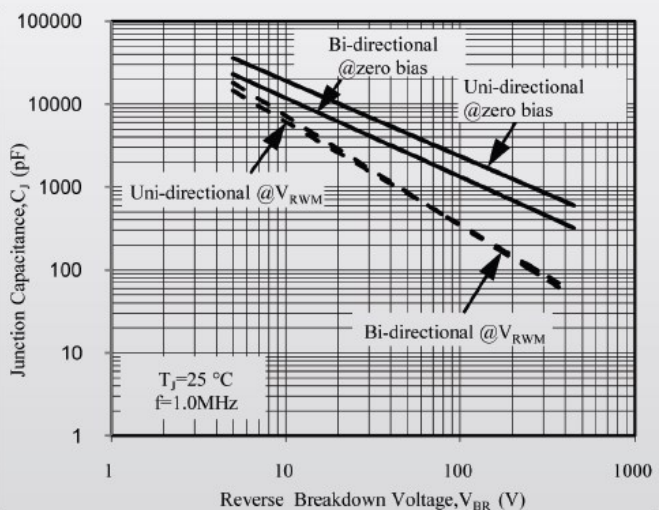


Fig. 6 - Typical Junction Capacitance

REFERENCE

Revision History	Modification Description
Rev.1.0	Initial Release
Rev1.01	Edit Document Layout