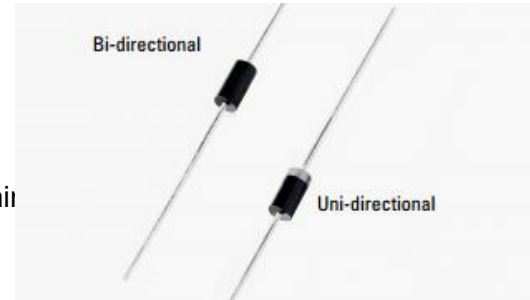


Transient Voltage Suppressors (TVS) Data Sheet

FEATURE

- Plastic package.
- Glass passivated chip junction in P600 Package
- Excellent clamping capability.
- Low zener impedance.
- 15000W peak pulse power capability on 10/1000 μ s waveform.
- Typical IR less than 1 μ A above 13V.
- Fast response time: typically less than 1.0ps from 0 Volts to BV min
- High temperature soldering guaranteed: 265 $^{\circ}$ C/10 seconds
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Expsemi electronics



MECHANICAL DATE

- Case: JEDEC P600 Molded Plastic.
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026.
- Polarity: Color band denoted cathode except bidirectional.
- Mounting Position: Any.

MAXIMUM RATINGS AND CHARACTERISTICS

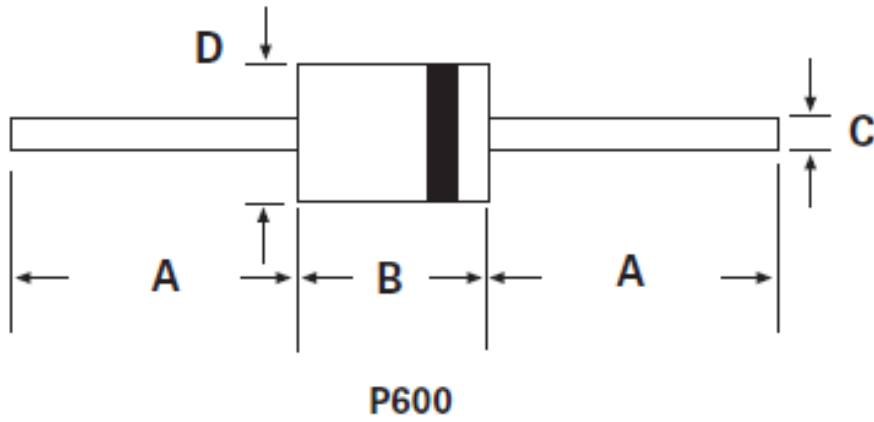
Ratings at 25 $^{\circ}$ C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000 μ s waveform (Note1, Fig.1).	P _{PPM}	Minimum15000	Watts
Peak Pulse Current of on 10/1000 μ s waveform.(Note1, Fig.3)	I _{PPM}	See Table	Amps
Steady State Power Dissipation at TL =75 $^{\circ}$ C,Lead lengths.375", (9.5mm) (Fig.5).	P _{M(AV)}	8.0	Watts
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 2, Fig.6).	I _{FSM}	400	Amps
Operating junction and Storage Temperature Range.	T _J , T _{STG}	-55 to +175	$^{\circ}$ C

Notes:

1. Non-repetitive current pulse, per Fig. 3 and derated above TA = 25 $^{\circ}$ C per Fig. 2.
2. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

DIMENSIONS



Item	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.40	-	1.000	-
B	8.60	9.10	0.340	0.360
C	1.22	1.32	0.048	0.052
D	8.60	9.10	0.340	0.360

ELECTRICAL CHARACTERISTICS

Part Number		Reverse Stand-Off Voltage	Breakdown Voltage MIN.@IT	Reverse Leakage @VRWM	Test Current	Peak Pulse Current	Maximum Clamping Voltage @IPP
UNT	BI	VR(V)	VBL(V)	IR(μA)	IT(mA)	IPP(A)	VCH(V)
15KP17A	15KP17CA	17	18.99	5000	50	515.4	29.3
15KP18A	15KP18CA	18	20.11	5000	50	488.7	30.9
15KP20A	15KP20CA	20	22.34	1500	50	440.2	34.3
15KP22A	15KP22CA	22	24.57	500	50	407.0	37.1
15KP24A	15KP24CA	24	26.81	150	5	371.0	40.7
15KP26A	15KP26CA	26	29.04	50	5	343.2	44.0
15KP28A	15KP28CA	28	31.28	25	5	317.9	47.5
15KP30A	15KP30CA	30	33.51	15	5	297.8	50.7
15KP33A	15KP33CA	33	36.90	2	5	276.1	54.7
15KP36A	15KP36CA	36	40.20	2	5	252.5	59.8
15KP40A	15KP40CA	40	44.70	2	5	229.5	65.8
15KP43A	15KP43CA	43	48.00	2	5	216.3	69.8
15KP45A	15KP45CA	45	50.30	2	5	207.4	72.8
15KP48A	15KP48CA	48	53.60	2	5	194.3	77.7
15KP51A	15KP51CA	51	57.00	2	5	182.1	82.9
15KP54A	15KP54CA	54	60.30	2	5	172.2	87.7
15KP58A	15KP58CA	58	64.80	2	5	161.0	93.8
15KP60A	15KP60CA	60	67.00	2	5	155.0	97.4
15KP64A	15KP64CA	64	71.50	2	5	144.9	104.2
15KP70A	15KP70CA	70	78.20	2	5	132.9	113.6
15KP75A	15KP75CA	75	83.80	2	5	123.8	122.0
15KP78A	15KP78CA	78	87.10	2	5	119.7	126.1
15KP85A	15KP85CA	85	94.9	2	5	109.7	137.6
15KP90A	15KP90CA	90	100.5	2	5	103.7	145.6
15KP100A	15KP100CA	100	111.7	2	5	93.6	161.3
15KP110A	15KP110CA	110	122.9	2	5	84.5	178.6
15KP120A	15KP120CA	120	134.0	2	5	78.5	192.3
15KP130A	15KP130CA	130	145.2	2	5	72.5	208.3
15KP150A	15KP150CA	150	167.6	2	5	62.4	241.9
15KP160A	15KP160CA	160	178.7	2	5	58.4	258.6
15KP170A	15KP170CA	170	189.9	2	5	55.4	272.7
15KP180A	15KP180CA	180	201.1	2	5	52.3	288.5
15KP200A	15KP200CA	200	223.4	2	5	47.3	319.1
15KP220A	15KP220CA	220	245.7	2	5	42.8	352.5
15KP240A	15KP240CA	240	268.1	2	5	39.3	384.6
15KP260A	15KP260CA	260	290.4	2	5	36.2	416.7
15KP280A	15KP280CA	280	312.8	2	5	33.2	454.5

Notes: For bidirectional type having VRWM of 30 volts and less, the IR limit is double.

RATINGS AND CHARACTERISTIC CURVES ($T_A=25^\circ\text{C}$ unless otherwise noted)

Figure 1 - Peak Pulse Power Rating Curve

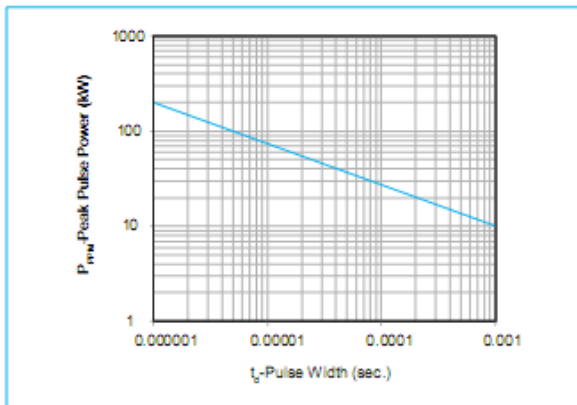


Figure 2 - Pulse Derating Curve

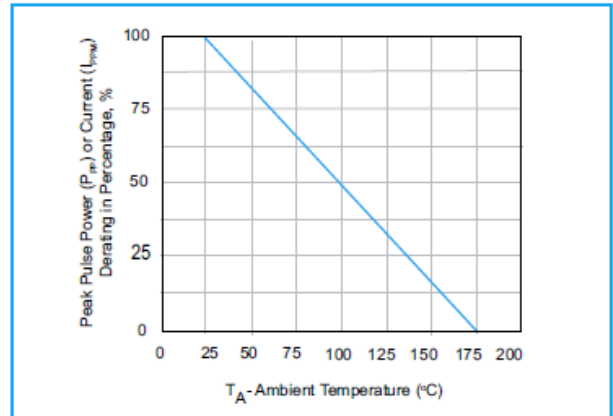


Figure 3 - Pulse Waveform

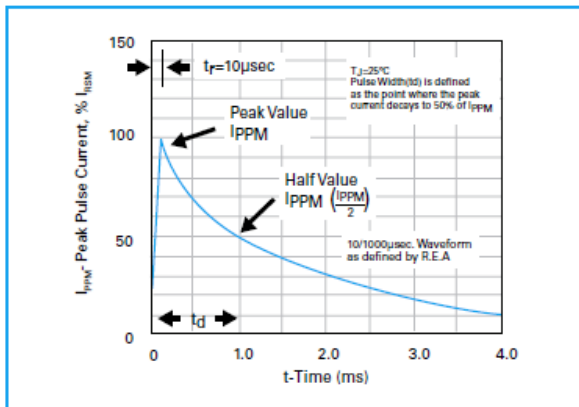


Figure 4 - Typical Junction Capacitance Uni-Directional

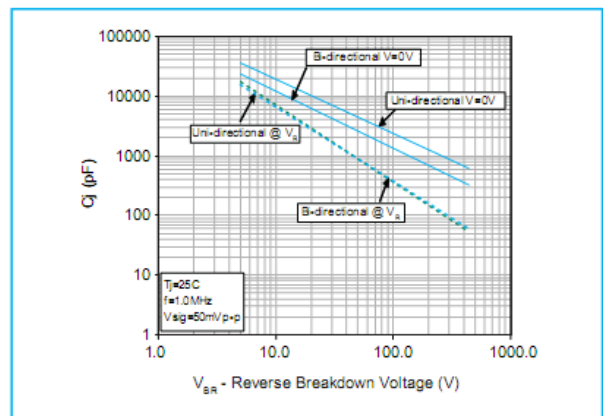


Figure 5 - Steady State Power Dissipation Derating Curve

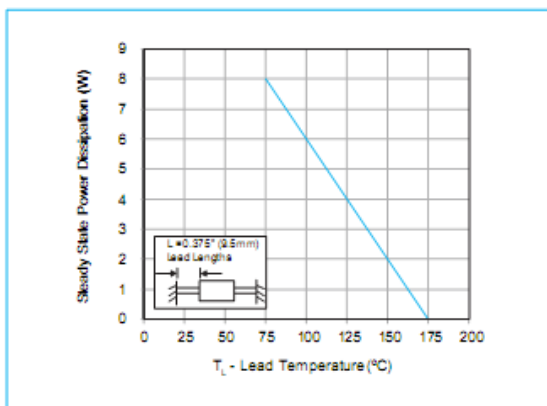


Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only

