

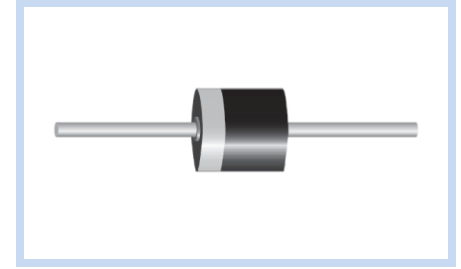
# Transient Voltage Suppressors 6000W P-600 AEC-Q101

LDP Series

MERITEK

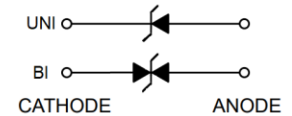
## FEATURE

- Meet ISO 7637-2 5a/5b Protection
- 6000W Peak Pulse Power (10/1000 $\mu$ s), Repetitive Rate: 0.01%
- 12.4V to 60V Standoff Voltage
- Excellent Clamping Capability
- Low Leakage
- Glass Passivated Junction
- UL Flammability Classification Rating 94V-0
- UL Safety Approved Certification No: E223045
- AEC-Q101 Qualified



## MECHANICAL DATA

- Case: P-600/R-6, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Denotes Cathode End Except Bipolar



## MAXIMUM RATINGS

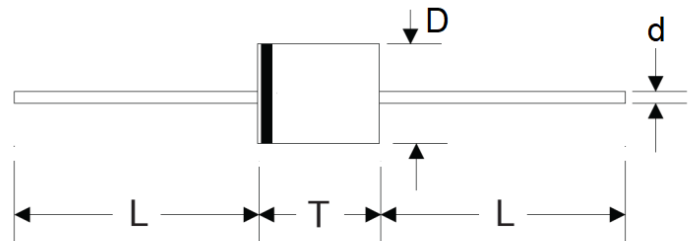
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 $\mu$ s waveform	$P_{PPM}$	6000	W
Peak Pulse Power Dissipation on 10/1000 $\mu$ s waveform	$P_{PPM}$	2400	W
Peak Pulse Current on 10/1000 $\mu$ s waveform	$I_{PPM}$	See Table	A
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$	$P_D$	8.0	W
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load	$I_{FSM}$	500	A
Maximum Instantaneous Forward Voltage at 100A, For Unidirectional Only	$V_F$	3.5	V
Operating Junction And Storage Temperature Range	$T_J, T_{STG}$	-55 to +175	$^\circ\text{C}$

Note:

1.  $T_A = 25^\circ\text{C}$  ambient temperature unless otherwise specified.
2. Non-repetitive current pulse, and derated above  $T_A = 25^\circ\text{C}$ .
3. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minute maximum.

## DIMENSIONS

P600/R-6	Min(mm)	Max(mm)
D	8.64	9.14
T	8.64	9.14
L	25.4	-
d	1.22	1.32



# Transient Voltage Suppressors 6000W P-600 AEC-Q101

LDP Series

**MERITEK**

## ELECTRICAL CHARACTERISTICS

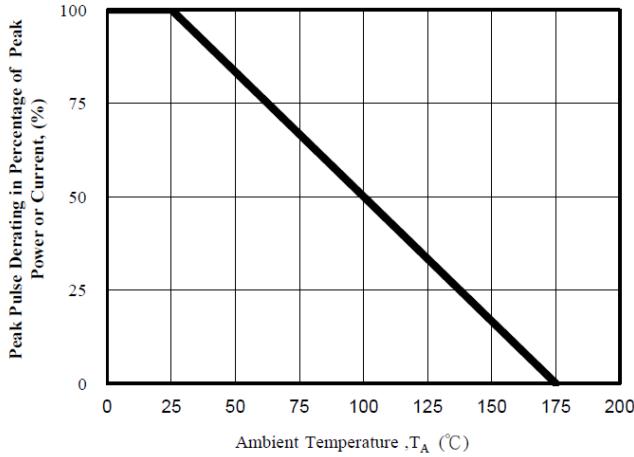
Part Number		Working Reverse Voltage	Reverse Breakdown Voltage		Test Current	Max Reverse Leakage Current	Max Clamping Voltage	Reverse Surge Current
Uni-Polar	Bi-Polar	$V_{RWM}$ (V)	$V_{BR}$ Min(V)	$V_{BR}$ Max(V)	$I_T$ (mA)	$I_R$ (uA) @ $V_{RWM}$	$V_C$ (V) @ $I_{PP}$	$I_{PP}$ (A) Max
LDP10A	LDP10CA	10	11.8	13.0	5	10	17.0	350
LDP11A	LDP11CA	11	12.2	13.5	5	10	18.2	327
LDP12A	LDP12CA	12	13.3	14.7	5	10	19.9	300
LDP13A	LDP13CA	13	14.4	15.9	5	10	21.5	277
LDP14A	LDP14CA	14	15.6	17.2	5	10	23.2	257
LDP15A	LDP15CA	15	16.7	18.5	5	10	24.4	245
LDP16A	LDP16CA	16	17.8	19.7	5	10	26.0	229
LDP17A	LDP17CA	17	18.9	20.9	5	10	27.6	216
LDP18A	LDP18CA	18	20.0	22.1	5	10	29.2	204
LDP20A	LDP20CA	20	22.2	24.5	5	10	32.4	184
LDP22A	LDP22CA	22	24.4	26.9	5	10	35.5	168
LDP24A	LDP24CA	24	26.7	29.5	5	10	38.9	154
LDP26A	LDP26CA	26	28.9	31.9	5	10	42.1	142
LDP28A	LDP28CA	28	31.1	34.4	5	10	45.4	131
LDP30A	LDP30CA	30	33.3	36.8	5	10	48.4	123
LDP33A	LDP33CA	33	36.7	40.6	5	10	53.3	112
LDP36A	LDP36CA	36	40.0	44.2	5	10	58.1	103
LDP40A	LDP40CA	40	44.4	49.1	5	10	64.5	92.5
LDP43A	LDP43CA	43	49.0	54.2	5	10	69.4	86.0
LDP48A	LDP48CA	48	53.3	58.9	5	10	77.4	77.0
LDP54A	LDP54CA	54	60.0	66.3	5	10	87.1	68.5
LDP58A	LDP58CA	58	64.4	71.2	5	10	93.6	64.0
LDP60A	LDP60CA	60	68.4	75.6	5	10	96.8	61.5

Note:

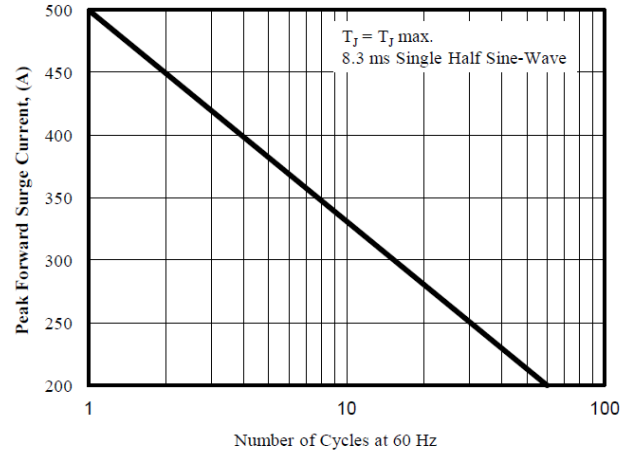
1.  $T_A = 25^\circ\text{C}$  ambient temperature unless otherwise specified.
2. Add suffix 'C' or 'CA' after part number to specify Bi-directional devices.
3. For Bi-Directional devices having  $V_R$  of 10 volts and under, the  $I_R$  limit is double.
4. Surge current waveform is defined at 10/1000 $\mu\text{S}$  waveform

## CHARACTERISTIC CURVES

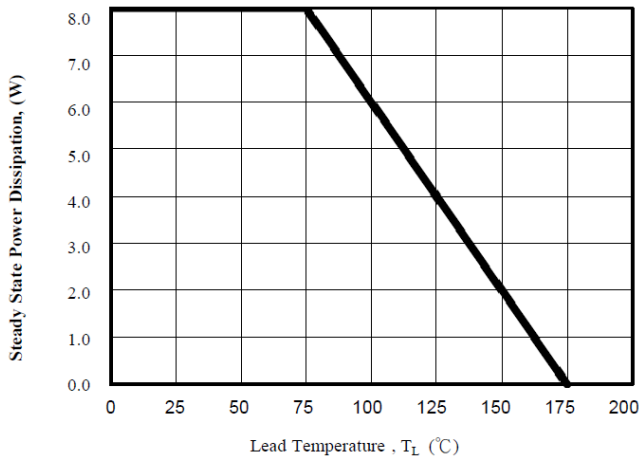
Pulse Derating Curve



Maximum Non-Repetitive



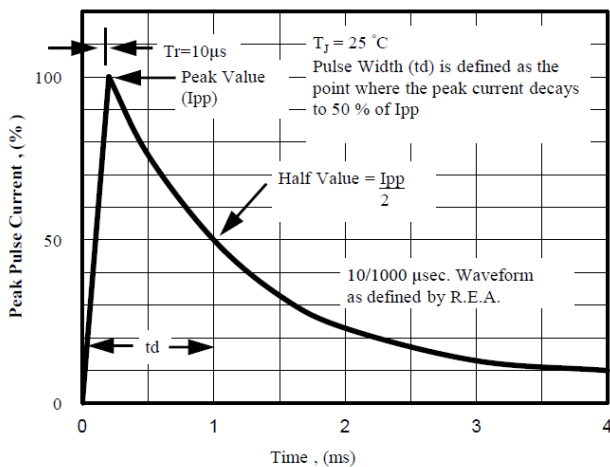
Steady State Power Derating Curve



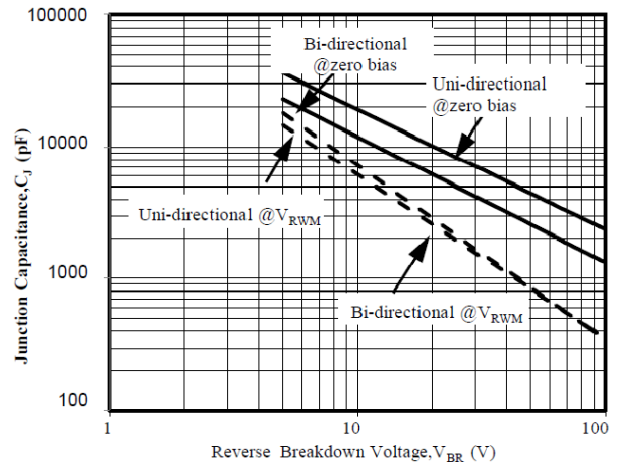
Peak Pulse Power Rating Curve



Pulse Waveform



Typical Junction Capacitance



\*Specifications subject to change without notice.