

# Silicon Avalanche Diodes

## 15000 Watt Axial Leaded Transient Voltage Suppressor

### RoHS 15KP Series



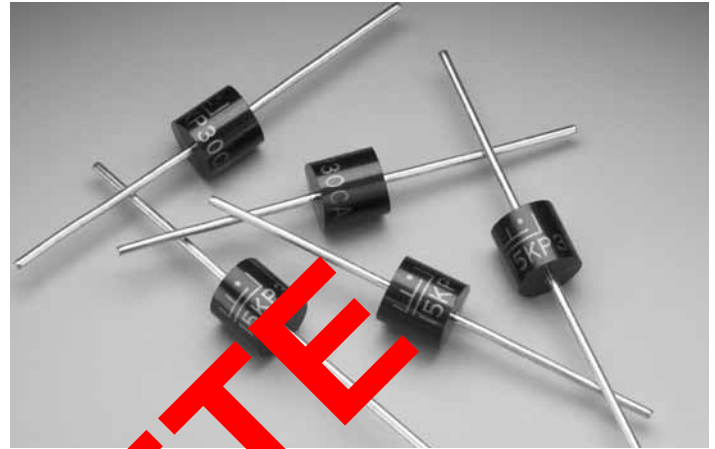
The 15KP Series is designed specifically to protect sensitive electronics equipment from voltage transients induced by lightning and other transient voltage events. These devices are ideal for the protection of I/O interfaces, Vcc bus and other vulnerable circuits used in automotive, industrial and consumer electronic applications.

#### FEATURES

- RoHS Compliant
- 17.0 to 280 Volts
- Uni-directional and Bi-directional
- Glass passivated junction
- 15000W peak pulse power capability on 10/1000 $\mu$ s waveform
- Excellent clamping capability
- Repetition rate(duty cycle): 0.05%
- Low incremental surge resistance
- Fast response time: typically less than 1.0ps from 0 Volts to BV, Bidirectional less than 10ns
- High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 51bs.(2.3kg) tension

**Agency Approvals:** Recognized under the components program of underwriters laboratories.

**Agency File Number:** E128662

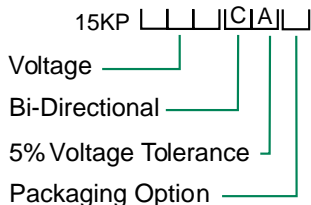


#### MAXIMUM RATINGS AND CHARACTERISTICS @25°C AMBIENT TEMPERATURE (unless otherwise noted)

TESTING	SYMBOL	VALUE	UNIT
Peak Pulse Power Dissipation on 10/1000 $\mu$ s waveform (note 1, FIG.1)	P <sub>PPM</sub>	Min 15000	Watts
Peak pulse current of on 10\1000 $\mu$ s waveform (note 1, FIG.3)	I <sub>PPM</sub>	SEE TABLE 1	Amps
Steady State Power Dissipation at T <sub>L</sub> =75°C, Lead lengths .375", (9.5mm)(Note 2)	P <sub>M(AV)</sub>	8	Watts
Peak Forward Surge Current, 1/20 second/25°C (JEDEC Method)	I <sub>FSM</sub>	400	Amps
Operating junction and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-55 to +175	°C

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#### ORDERING INFORMATION



B = Bulk (500 pcs)  
T = Tape and reeled (800 pcs)

#### Mechanical Specifications:

**Weight:** 0.07 ounce, 2.5 grams  
**Case:** Molded plastic over glass passivated junction  
**Mounting Position:** Any  
**Polarity:** Color band denotes positive end (cathode) except Bipolar  
**Terminal:** Plated Axial leads, solderable per MIL-STD-750, Method 2026

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#### ELECTRICAL SPECIFICATION @ Tamb 25°C

Part Numbers		Reverse Stand off Voltage V <sub>R</sub> (Volts)	Breakdown Voltage V <sub>BR</sub> (Volts) @ I <sub>T</sub>	Test Current I <sub>T</sub> (mA)	Maximum Peak Pulse Current I <sub>PP</sub> (A)	Maximum Reverse Leakage I <sub>R</sub> @ V <sub>R</sub> (μA)	Maximum Clamping Voltage V <sub>c</sub> @ I <sub>PP</sub> (Volts)
Uni-Polar	Bi-Polar						
15KP17A	15KP17CA	17	18.9	50	512	5000	29.3
15KP18A	15KP18CA	18	20.0	50	485	5000	30.9
15KP20A	15KP20CA	20	22.2	20	437	1500	34.3
15KP22A	15KP22CA	22	24.4	10	404	500	37.1
15KP24A	15KP24CA	24	26.7	5	369	150	40.5
15KP26A	15KP26CA	26	28.9	5	347	50	44.0
15KP28A	15KP28CA	28	31.1	5	316	25	47.5
15KP30A	15KP30CA	30	33.3	5	296	10	50.7
15KP33A	15KP33CA	33	36.7	5	274	10	54.0
15KP36A	15KP36CA	36	40.0	5	251	10	57.7
15KP40A	15KP40CA	40	44.4	5	228	10	61.8
15KP43A	15KP43CA	43	47.8	5	215	10	66.0
15KP45A	15KP45CA	45	50.0	5	200	10	70.0
15KP48A	15KP48CA	48	53.3	5	193	10	74.0
15KP51A	15KP51CA	51	56.7	5	181	10	78.0
15KP54A	15KP54CA	54	60.0	5	171	10	82.0
15KP58A	15KP58CA	58	64.4	5	160	10	86.0
15KP60A	15KP60CA	60	66.7	5	154	10	90.0
15KP64A	15KP64CA	64	71.1	5	145	10	94.0
15KP70A	15KP70CA	70	77.8	5	132	10	100.0
15KP75A	15KP75CA	75	83.3	5	123	10	106.0
15KP78A	15KP78CA	78	86.7	5	119	10	112.0
15KP85A	15KP85CA	85	94.0	5	109	10	119.0
15KP90A	15KP90CA	90	100.0	5	103	10	126.0
15KP100A	15KP100CA	100	110.0	5	93	10	134.0
15KP110A	15KP110CA	110	122.0	5	84	10	143.0
15KP120A	15KP120CA	120	133.0	5	78	10	153.0
15KP130A	15KP130CA	130	144.0	5	72	10	164.0
15KP150A	15KP150CA	150	167.0	5	62	10	187.0
15KP160A	15KP160CA	160	178.0	5	58	10	200.0
15KP170A	15KP170CA	170	189.0	5	55	10	214.0
15KP180A	15KP180CA	180	200.0	5	52	10	229.0
15KP200A	15KP200CA	200	222.0	5	47	10	256.0
15KP220A	15KP220CA	220	245.0	5	42	10	285.0
15KP240A	15KP240CA	240	267.0	5	39	10	317.0
15KP260A	15KP260CA	260	289.0	5	36	10	351.0
15KP280A	15KP280CA	280	311.0	5	33	10	388.0

For bidirectional type having V<sub>rrm</sub> of 30 volts and less, the I<sub>R</sub> limit is double.

For parts without A, the V<sub>BR</sub> is ± 10%

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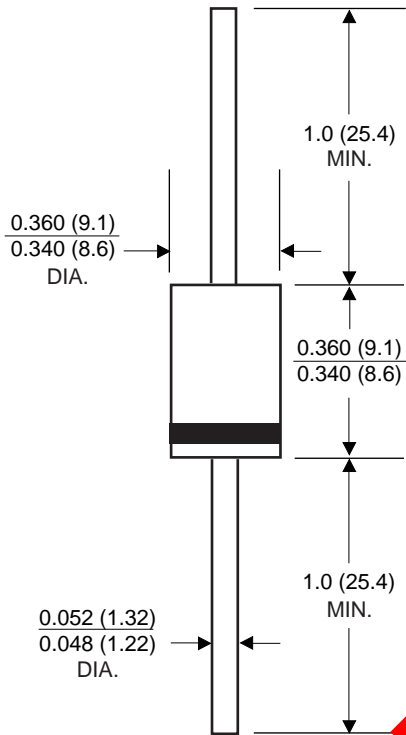
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### Package Outline Dimensions

#### Case Style P600



Dimensions in inches and (millimeters)

**OBSOLETE**