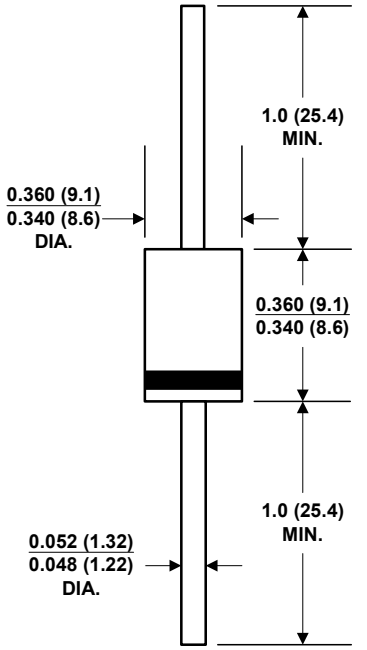
15KPA SERIES

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR
STAND-OFF VOLTAGE-17 TO 280 Volts
15000 Watt Peak Pulse Power

Case Style P600



Dimensions in inches and(millimeters)

FEATURES

◎ Halogen-Free
◎ RoHS compliant
◎ Typical maximum temperature coefficient $\triangle V_{BR}=0.1\%xV_{BR}@25℃x\triangle T$
◎ Plastic package
◎ Glass passivated junction
◎ 15000W peak pulse power capability on 10/1000us 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,
◎ High temperature soldering guaranteed: 260°C/40 seconds/.375", (9.5mm) lead length,51bs.(2.3kg) tension
◎ Matte Tin Lead-free plated

MECHANICAL DATA

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

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000μs waveform (Note 1,FIG.1)	P_{PPM}	Minimum 15000	Watts
Peak Pulse Current of on 10/1000μs waveform (Note 1,FIG.3)	I_{PPM}	SEE TABLE 1	Amps
Steady State Power Dissipation at T_L = 75℃ , Lead lengths.375",(9.5mm) (Note 2)	$P_{M(AV)}$	8	Watts
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load,(JEDEC Method) (Note 3)	I_{FSM}	400	Amps
Operating junction and Storage Temperature Range	T_J , T_{STG}	-55 to + 175	℃

Notes :
1.Non-repetitive current pulse , per Fig. 3 and derated above T_A = 25℃ per Fig. 2 .
2.Mounted on Copper Pad area of 0.8×0.8" (20×20mm) per Fig. 5.
3.8.3ms single half sine-wave , or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

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15KPA PART NUMBER		REVERSE STAND- OFF VOLTAGE V_{RWM}(V)	BREAKDOWN VOLTAGE V_{BR}(V) MIN. @I_T	TEST CURRENT I_T (mA)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @ V_{RWM} I_R(μA)	MAXIMUN CLAMPING VOLTAGE @I_{PP} V_C (V)
UNI-POLAR	BI-POLAR						
15KPA17A	15KPA17CA	17	18.99	50	515.4	5000	29.3
15KPA18A	15KPA18CA	18	20.11	50	488.7	5000	30.9
15KPA20A	15KPA20CA	20	22.34	20	440.2	1500	34.3
15KPA22A	15KPA22CA	22	24.57	10	407.0	500	37.1
15KPA24A	15KPA24CA	24	26.81	5	371.0	150	40.7
15KPA26A	15KPA26CA	26	29.04	5	343.2	50	44.0
15KPA28A	15KPA28CA	28	31.28	5	317.9	25	47.5
15KPA30A	15KPA30CA	30	33.51	5	297.8	15	50.7
15KPA33A	15KPA33CA	33	36.9	5	276.1	2	54.7
15KPA36A	15KPA36CA	36	40.2	5	252.5	2	59.8
15KPA40A	15KPA40CA	40	44.7	5	229.5	2	65.8
15KPA43A	15KPA43CA	43	48.0	5	216.3	2	69.8
15KPA45A	15KPA45CA	45	50.3	5	206.3	2	73.2
15KPA48A	15KPA48CA	48	53.6	5	194.3	2	77.7
15KPA51A	15KPA51CA	51	57.0	5	182.1	2	82.9
15KPA54A	15KPA54CA	54	60.3	5	172.2	2	87.7
15KPA58A	15KPA58CA	58	64.8	5	161.0	2	93.8
15KPA60A	15KPA60CA	60	67.0	5	155.0	2	97.4
15KPA64A	15KPA64CA	64	71.5	5	144.9	2	104.2
15KPA70A	15KPA70CA	70	78.2	5	132.9	2	113.6
15KPA75A	15KPA75CA	75	83.8	5	123.8	2	122.0
15KPA78A	15KPA78CA	78	87.1	5	119.7	2	126.1
15KPA85A	15KPA85CA	85	94.9	5	109.7	2	137.6
15KPA90A	15KPA90CA	90	100.5	5	103.7	2	145.6
15KPA100A	15KPA100CA	100	111.7	5	93.6	2	161.3
15KPA110A	15KPA110CA	110	122.9	5	84.5	2	178.6
15KPA120A	15KPA120CA	120	134.0	5	78.5	2	192.3
15KPA130A	15KPA130CA	130	145.2	5	72.5	2	208.3
15KPA150A	15KPA150CA	150	167.6	5	62.4	2	241.9
15KPA160A	15KPA160CA	160	178.7	5	58.4	2	258.6
15KPA170A	15KPA170CA	170	189.9	5	55.4	2	272.7
15KPA180A	15KPA180CA	180	201.1	5	52.3	2	288.5
15KPA200A	15KPA200CA	200	223.4	5	47.3	2	319.1
15KPA220A	15KPA220CA	220	245.7	5	42.4	2	356.0
15KPA240A	15KPA240CA	240	268.1	5	39.3	2	384.6
15KPA260A	15KPA260CA	260	290.4	5	36.2	2	416.7
15KPA280A	15KPA280CA	280	312.8	5	33.2	2	454.5

For bidirectional type having Vrwm of 30 volts and less, the IR limit is double.
For parts without A , the V_{BR} is ± 10%
VC is 10% higher than with A Parts.

RATINGS AND CHARACTERISTIC CURVES

Ratings and Characteristic Curves(T_A=25℃ unless otherwise noted)

Fig. 1 - Peak Pulse Power Rating Curve

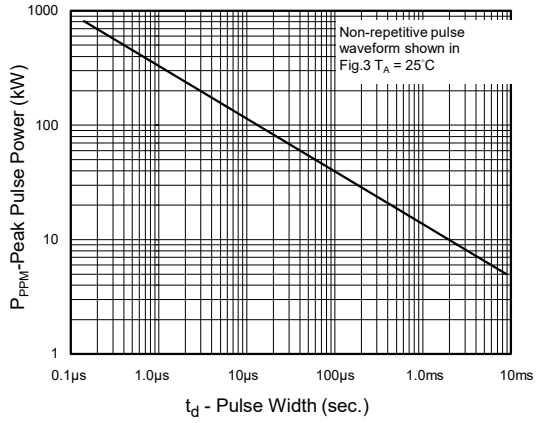


Fig.2 - Pulse Derating Curve

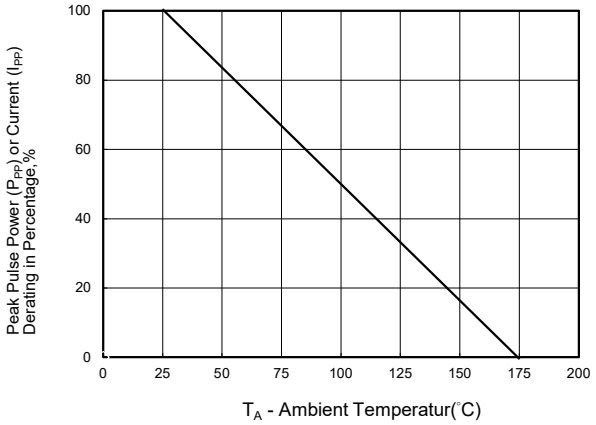


Fig.3 - Test Pulse Waveform

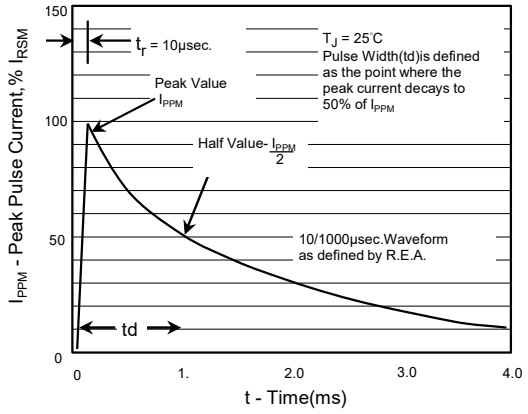


Fig. 4 - Typical Junction Capacitance

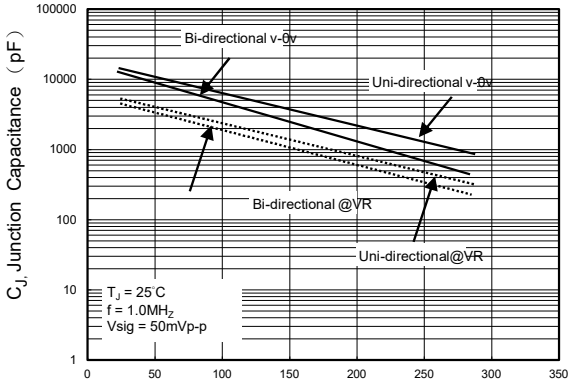


Fig. 5 - Steady State Power Derating Curve

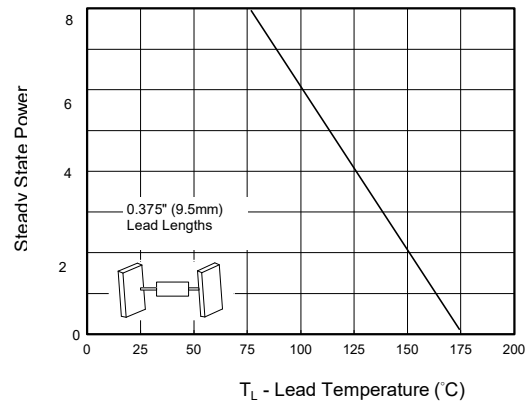
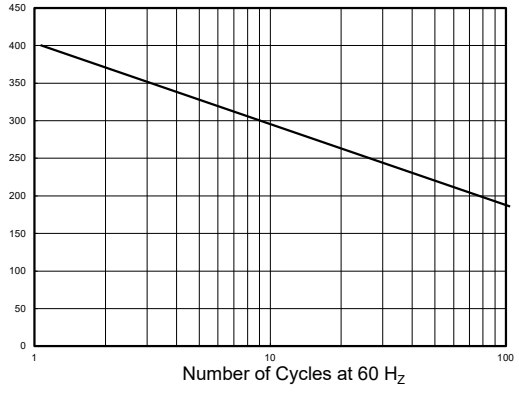


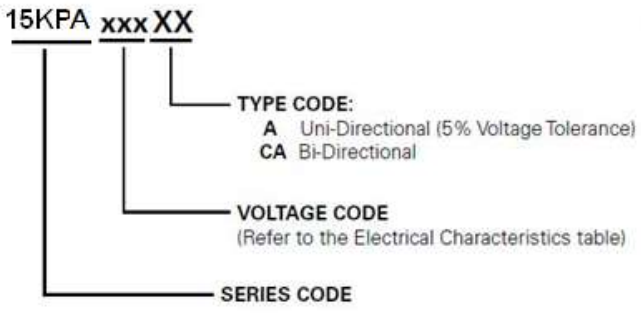
Fig.6 - Maximum Non-repetitive Forward Surge current



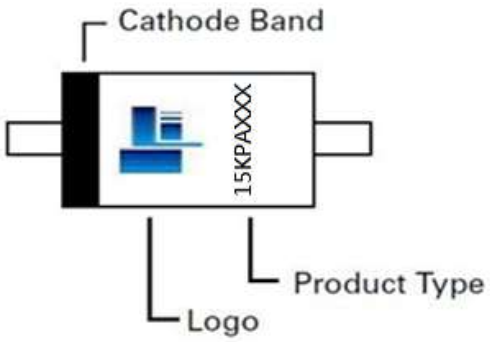
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Part Numbering System



Part Marking System



Packaging

Part number	Component Package	Quantity	Packaging Option	Packaging Specification
15KPAxxxXX	P-600	750	Tape & Reel	EIA STD RS-296E
15KPAxxxXX	P-600	300	Tape & Box	Lucky Forests Packing Spec. DM-024
15KPAxxxXX	P-600	200	Bulk	Lucky Forests Packing Spec. DM-024