

Unidirectional And Bidirectional Transient Voltage Suppressor



Features:

- Low leakage
- Uni and Bi-Directional unit
- Excellent clamping capability
- Plastic material has UL recognition 94V-0
- Fast response time

Mechanical Data:

Case	: Molded Plastic
Polarity	: Uni-Directional -type number and cathode band Bi-Directional-type number only
Weight	: 0.4 grams
Reverse Voltage	: 6.8 to 600Volts
Power Dissipation	: 600 Watts

Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Characteristics	Symbol	Value	Unit
Peak Power Dissipation at $T_A = 25^\circ\text{C}$ TP = 1ms (Note 1)	P_{PK}	Min. 600	Watts
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	100	Amps
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$ Lead Lengths 0.375"(9.5mm), See Fig. 4	$P_{M(AV)}$	5	Watts
Maximum Instantaneous Forward Voltage at 50A for Uni-Directional Devices only (Note 2)	V_F	See Note 3	Volts
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C

Notes:

1. Non-repetitive current pulse, per Fig. 5 and derated above $T_A = 25^\circ\text{C}$ per Fig. 1.
2. 8.3ms single half-wave duty cycle=4 pulses per minutes maximum (uni-directional units only).
3. $V_F = 3.5\text{V}$ on P6KE6.8 thru P6KE200A devices.

Part Number		Reverse Standoff Voltage	Breakdown Voltage BV Volts@It			Max. Reverse Leakage	Max. Clamping Voltage	Max. Peak Pulse	Max. Voltage Temp. Variation
(UNI)	(BI)	VR(V)	Min.(V)	Max.(V)	It(mA)	IR(μA)	Vc(V)	Ipp(A)	mV/°C
-	P6KE12CA	10.2	11.4	12.6	1	5	16.7	36	0.078
P6KE13A	-	11.1	12.4	13.7	1	5	18.2	33	0.081
P6KE150A	-	128	143	158	1	5	207	2.9	0.108

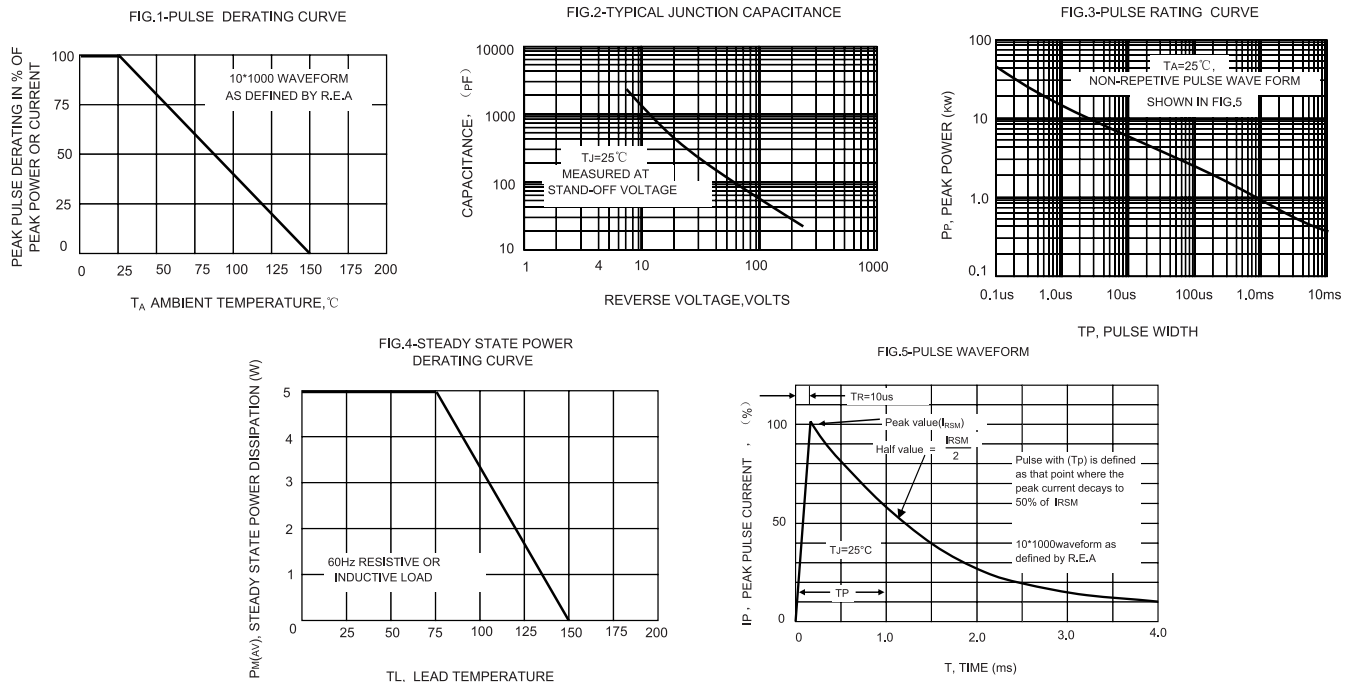
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Part Number		Reverse Standoff Voltage	Breakdown Voltage BV Volts@It			Max. Reverse Leakage	Max. Clamping Voltage	Max. Peak Pulse	Max. Voltage Temp. Variation
(UNI)	(BI)		VR(V)	Min.(V)	Max.(V)				
-	P6KE15CA	12.8	14.3	15.8	1	5	21.2	28	0.084
P6KE16A	P6KE16CA	13.6	15.2	16.8	1	5	22.5	27	0.086
P6KE180A	P6KE180CA	154	171	189	1	5	246	2.4	0.108
P6KE18A	P6KE18CA	15.3	17.1	18.9	1	5	25.2	24	0.088
P6KE20A	-	17.1	19	21	1	5	27.7	22	0.09
P6KE22A	-	18.8	20.9	23.1	1	5	30.6	20	0.092
-	P6KE24CA	20.5	22.8	25.2	1	5	33.2	18	0.094
P6KE30A	P6KE30CA	25.6	28.5	31.5	1	5	41.4	14.4	0.097
P6KE33A	-	28.2	31.4	34.7	1	5	45.7	13.2	0.098
-	P6KE36CA	30.8	34.2	37.8	1	5	49.9	12	0.099
P6KE39A	P6KE39CA	33.3	37.1	41	1	5	53.9	11.2	0.1
P6KE62A	-	53	58.9	65.1	1	5	85	7.1	0.104
P6KE7.5A	-	6.4	7.13	7.88	10	500	11.3	53	0.061
-	P6KE8.2CA	7.02	7.79	8.61	10	200	12.1	50	0.065
-	P6KE9.1CA	7.78	8.65	9.55	1	50	13.4	45	0.068
-	P6KE200CA	171	190	210	1	5	274	2.2	0.108

Notes: Suffix 'C' denotes bidirectional device . Suffix 'A' denotes 5% tolerance device .no suffix denotes 10% tolerance device
 1. For bidirectional devices having VR of 10Volts and under ,the IR limit is doubled

Ratings and Characteristic Curves



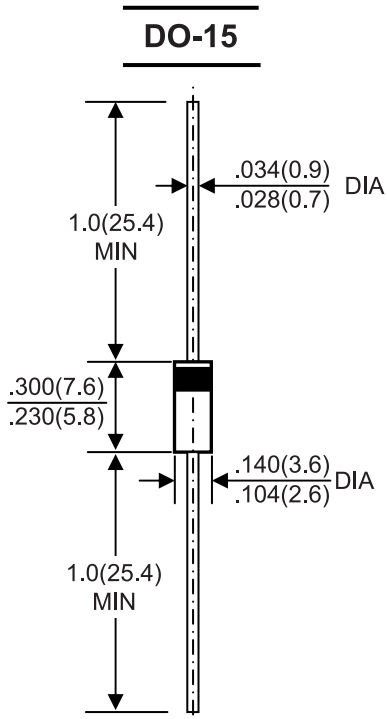
www.element14.com
 www.farnell.com
 www.newark.com



Unidirectional And Bidirectional Transient Voltage Suppressor



Dimensions:



Part Number Table

Description	Part Number
Unidirectional And Bidirectional Transient Voltage Suppressors	P6KE12CA
	P6KE13A
	P6KE150A
	P6KE15CA
	P6KE16A
	P6KE16CA
	P6KE180A
	P6KE180CA
	P6KE18A
	P6KE18CA
	P6KE20A
	P6KE22A
	P6KE24CA
	P6KE30A
	P6KE30CA
	P6KE33A
	P6KE36CA
	P6KE39A
	P6KE39CA
	P6KE62A
P6KE7.5A	
P6KE8.2CA	
P6KE9.1CA	

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