

P6KE-AU SERIES

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR POWER 600 Watt

BREAK DOWN VOLTAGE

22 to 68 Volt

DO-15

Unit : inch(mm)

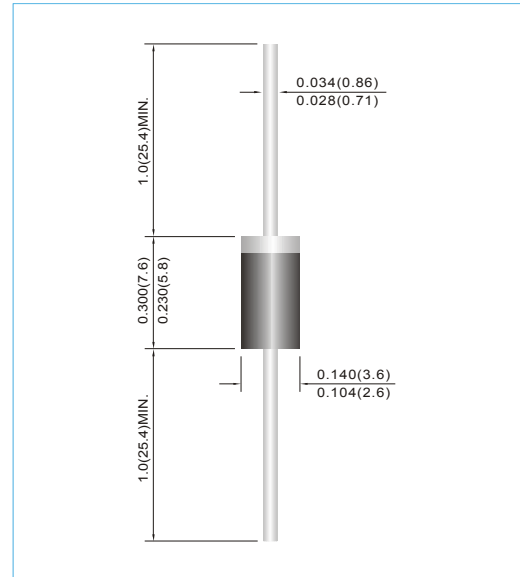
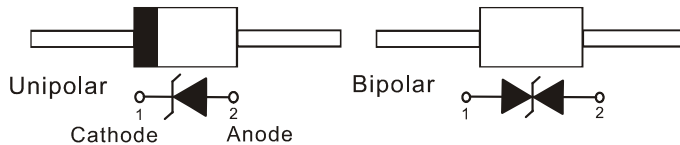
Recongnized File # E210467

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- 600W surge capability at 1ms
- Excellent clamping capability
- Low zener impedance
- Fast response time: typically less than 1 ps from 0 volts to BV min
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- ESD IEC-61000-4-2 Air ± 30 kV, Contact ± 30 kV
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- Case: JEDEC DO-15 Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.014 ounce, 0.4 gram



DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C Suffix for types
Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.
For Capacitive load derate current by 20%.

Rating	Symbol	Value	Units
Power Dissipation on $T_A=25^\circ\text{C}$, $t_p=1\text{ms}$ (Notes 1)	P_{PP}	600	Watts
Typical Thermal Resistance (Notes 2)	$R_{\theta JA}$ $R_{\theta JC}$	70 30	$^\circ\text{C} / \text{W}$
Peak Pulse Current on $t_p=10/1000\mu\text{s}$ waveform (Notes 1)	I_{PPM}	see Table	Amps
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Notes 3)	I_{FSM}	100	Amps
ESD IEC-61000-4-2 (Air) ESD IEC-61000-4-2 (Contact)	V_{ESD}	± 30 ± 30	kV
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-65 to +175	$^\circ\text{C}$

NOTES :

1. Non-repetitive current pulse, per Fig. 3 and derated above $T_A=25^\circ\text{C}$ per Fig. 2.
2. Mounted on 48cm² FR-4 PCB.
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.
4. A transient suppressor is selected according to the working peak reverse voltage (V_{RWM}), which should be equal to or greater than the DC or continuous peak operating voltage level.



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Part Number		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage		Max. Clamp Voltage 10/1000μs	Peak Pulse Current 10/1000μs	Marking Code	
		V _{RWM} (Notes 4)	V _{BR} @ I _T		I _T	I _R @ V _{RWM}		V _C @ I _{PP}	I _{PP}		
			Min.	Max.		UNI	BI				
UNI	BI	V	V	V	mA	μA	μA	V	A	UNI	BI
600W Transient Voltage Suppressor											
P6KE22-AU	P6KE22C-AU	17.8	19.8	24.2	1	1	1	31.9	19	P6KE22	P6KE22C
P6KE22A-AU	P6KE22CA-AU	18.8	20.9	23.1	1	1	1	30.6	20	P6KE22A	P6KE22CA
P6KE24-AU	P6KE24C-AU	19.4	21.6	26.4	1	1	1	34.7	17	P6KE24	P6KE24C
P6KE24A-AU	P6KE24CA-AU	20.5	22.8	25.2	1	1	1	33.2	18	P6KE24A	P6KE24CA
P6KE27-AU	P6KE27C-AU	21.8	24.3	29.7	1	1	1	39.1	15	P6KE27	P6KE27C
P6KE27A-AU	P6KE27CA-AU	23.1	25.7	28.4	1	1	1	37.5	16	P6KE27A	P6KE27CA
P6KE30-AU	P6KE30C-AU	24.3	27	33	1	1	1	43.5	14	P6KE30	P6KE30C
P6KE30A-AU	P6KE30CA-AU	25.6	28.5	31.5	1	1	1	41.4	14.4	P6KE30A	P6KE30CA
P6KE33-AU	P6KE33C-AU	26.8	29.7	36.3	1	1	1	47.7	12.6	P6KE33	P6KE33C
P6KE33A-AU	P6KE33CA-AU	28.2	31.4	34.7	1	1	1	45.7	13.2	P6KE33A	P6KE33CA
P6KE36-AU	P6KE36C-AU	29.1	32.4	39.6	1	1	1	52	11.6	P6KE36	P6KE36C
P6KE36A-AU	P6KE36CA-AU	30.8	34.2	37.8	1	1	1	49.9	12	P6KE36A	P6KE36CA
P6KE39-AU	P6KE39C-AU	31.6	35.1	42.9	1	1	1	56.4	10.6	P6KE39	P6KE39C
P6KE39A-AU	P6KE39CA-AU	33.3	37.1	41	1	1	1	53.9	11.2	P6KE39A	P6KE39CA
P6KE43-AU	P6KE43C-AU	34.8	38.7	47.3	1	1	1	61.9	9.6	P6KE43	P6KE43C
P6KE43A-AU	P6KE43CA-AU	36.8	40.9	45.2	1	1	1	59.3	10.1	P6KE43A	P6KE43CA
P6KE47-AU	P6KE47C-AU	38.1	42.3	51.7	1	1	1	67.8	8.9	P6KE47	P6KE47C
P6KE47A-AU	P6KE47CA-AU	40.2	44.7	49.4	1	1	1	64.8	9.3	P6KE47A	P6KE47CA
P6KE51-AU	P6KE51C-AU	41.3	45.9	56.1	1	1	1	73.5	8.2	P6KE51	P6KE51C
P6KE51A-AU	P6KE51CA-AU	43.6	48.5	53.6	1	1	1	70.1	8.6	P6KE51A	P6KE51CA
P6KE56-AU	P6KE56C-AU	45.6	50.4	61.6	1	1	1	80.5	7.4	P6KE56	P6KE56C
P6KE56A-AU	P6KE56CA-AU	47.8	53.2	58.8	1	1	1	77	7.8	P6KE56A	P6KE56CA
P6KE62-AU	P6KE62C-AU	50.2	55.8	68.2	1	1	1	89	6.8	P6KE62	P6KE62C
P6KE62A-AU	P6KE62CA-AU	53	58.9	65.1	1	1	1	85	7.1	P6KE62A	P6KE62CA
P6KE68-AU	P6KE68C-AU	55.1	61.2	74.8	1	1	1	98	6.1	P6KE68	P6KE68C
P6KE68A-AU	P6KE68CA-AU	58.1	64.6	71.4	1	1	1	92	6.5	P6KE68A	P6KE68CA

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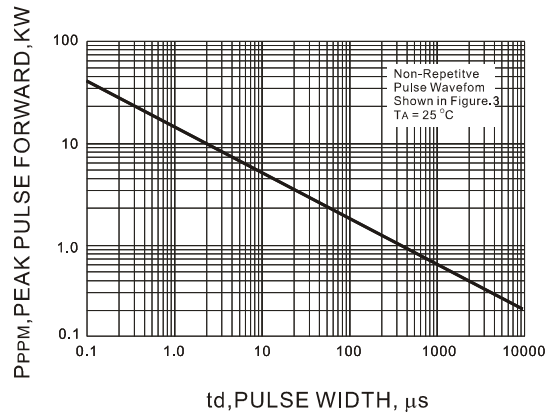


Fig.1 PEAK PULSE POWER RATING PULSE TIME CURVE

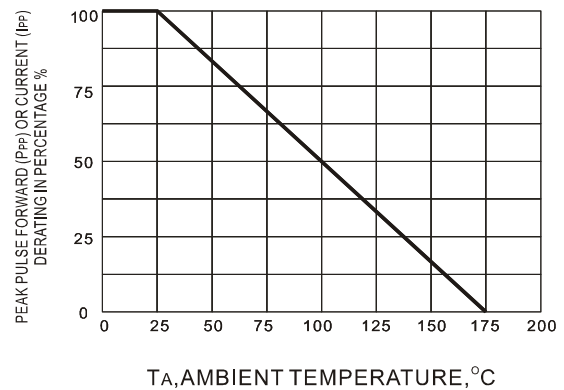


Fig.2 PULSE DERATING CURVE

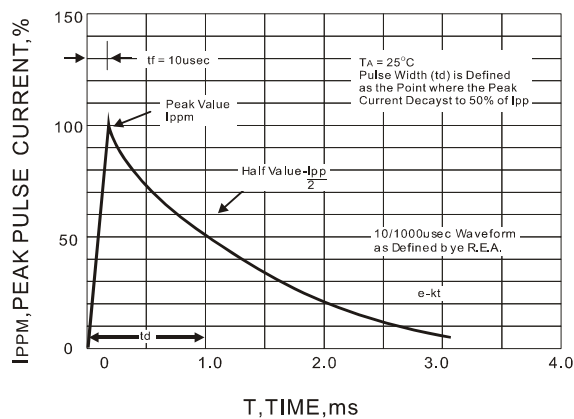


Fig.3 PULSE WAVEFORM

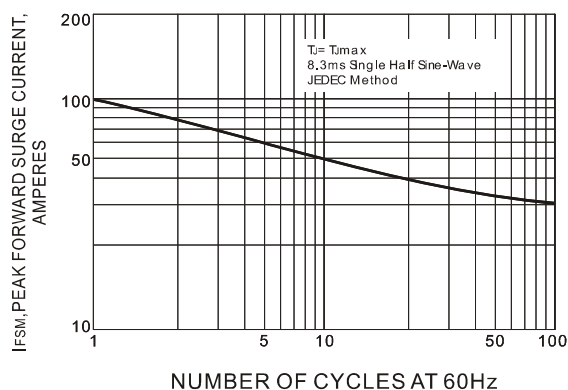


Fig.5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

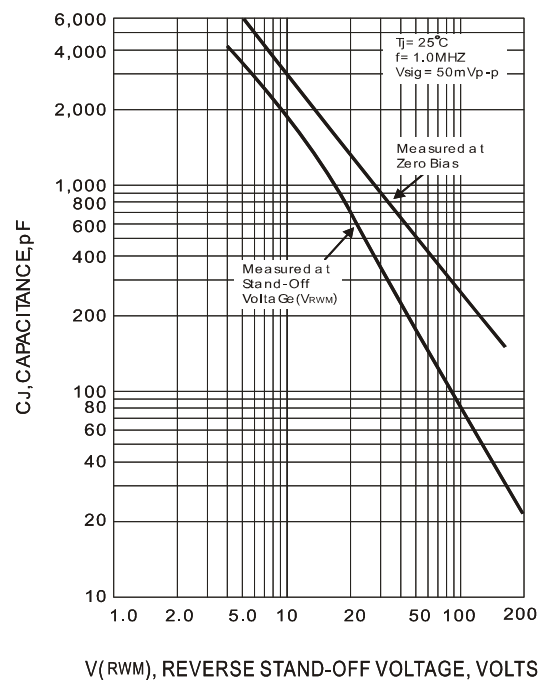


Fig.4 TYPICAL JUNCTION CAPACITANCE UNIDIRECTIONAL

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Part No_packing code_Version

P6KE22-AU_AY_000A1

P6KE22-AU_AY_100A1

P6KE22-AU_B0_000A1

P6KE22-AU_B0_100A1

P6KE22-AU_R2_000A1

P6KE22-AU_R2_100A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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