

P6KE10AS ~ P6KE250CAS Series

Transient Voltage Suppressor
Recongnized File # E210467

Voltage 10~250 V **Power** 600 W

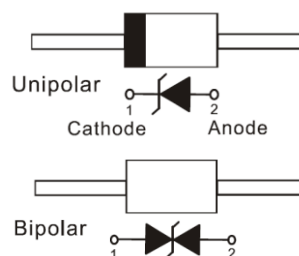
Features

- Fast response time
- Low incremental surge resistance
- High temperature soldering : 260°C/10 seconds at terminals
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: DO-15 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.014 ounces, 0.4 grams

DO-15



Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp = 10 / 1000 us)	P _{PP} ^{(1) (2)}	600	W
Peak Pulse Current on tp = 10 / 1000 us waveform ^(Fig.2)	I _{PPM} ⁽¹⁾	See table 1	A
Power Dissipation on Infinite Heat Sink at T _L = 75 °C	P _D	5	W
ESD IEC61000-4-2(Air)	V _{ESD}	±30	kV
ESD IEC61000-4-2(Contact)		±30	
Typical Thermal Resistance Junction to Ambient	R _{θJA} ⁽³⁾	65	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C



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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Part Number		V _{RWM}	V _{BR}			I _R		V _{C@I_{PP}}		Marking Code	
			Min.	Max.	I _T	@V _{RWM}	uA				
UNI	BI	V	V	V	mA	UNI	BI	V	A	UNI	BI
600W Transient Voltage Suppressor											
P6KE10AS	P6KE10CAS	8.55	9.5	10.5	1	10	20	14.5	41	P6KE10AS	P6KE10CAS
P6KE11AS	P6KE11CAS	9.4	10.5	11.6	1	5	10	15.6	38	P6KE11AS	P6KE11CAS
P6KE12AS	P6KE12CAS	10.2	11.4	12.6	1	5	5	16.7	36	P6KE12AS	P6KE12CAS
P6KE13AS	P6KE13CAS	11.1	12.4	13.7	1	1	1	18.2	33	P6KE13AS	P6KE13CAS
P6KE15AS	P6KE15CAS	12.8	14.3	15.8	1	1	1	21.2	28	P6KE15AS	P6KE15CAS
P6KE16AS	P6KE16CAS	13.6	15.2	16.8	1	1	1	22.5	27	P6KE16AS	P6KE16CAS
P6KE18AS	P6KE18CAS	15.3	17.1	18.9	1	1	1	25.2	24	P6KE18AS	P6KE18CAS
P6KE20AS	P6KE20CAS	17.1	19	21	1	1	1	27.7	22	P6KE20AS	P6KE20CAS
P6KE22AS	P6KE22CAS	18.8	20.9	23.1	1	1	1	30.6	20	P6KE22AS	P6KE22CAS
P6KE24AS	P6KE24CAS	20.5	22.8	25.2	1	1	1	33.2	18	P6KE24AS	P6KE24CAS
P6KE27AS	P6KE27CAS	23.1	25.7	28.4	1	1	1	37.5	16	P6KE27AS	P6KE27CAS
P6KE30AS	P6KE30CAS	25.6	28.5	31.5	1	1	1	41.4	14.4	P6KE30AS	P6KE30CAS
P6KE33AS	P6KE33CAS	28.2	31.4	34.7	1	1	1	45.7	13.2	P6KE33AS	P6KE33CAS
P6KE36AS	P6KE36CAS	30.8	34.2	37.8	1	1	1	49.9	12	P6KE36AS	P6KE36CAS
P6KE39AS	P6KE39CAS	33.3	37.1	41	1	1	1	53.9	11.2	P6KE39AS	P6KE39CAS
P6KE43AS	P6KE43CAS	36.8	40.9	45.2	1	1	1	59.3	10.1	P6KE43AS	P6KE43CAS
P6KE47AS	P6KE47CAS	40.2	44.7	49.4	1	1	1	64.8	9.3	P6KE47AS	P6KE47CAS
P6KE51AS	P6KE51CAS	43.6	48.5	53.6	1	1	1	70.1	8.6	P6KE51AS	P6KE51CAS
P6KE56AS	P6KE56CAS	47.8	53.2	58.8	1	1	1	77	7.8	P6KE56AS	P6KE56CAS
P6KE62AS	P6KE62CAS	53	58.9	65.1	1	1	1	85	7.1	P6KE62AS	P6KE62CAS
P6KE68AS	P6KE68CAS	58.1	64.6	71.4	1	1	1	92	6.5	P6KE68AS	P6KE68CAS
P6KE75AS	P6KE75CAS	64.1	71.3	78.8	1	1	1	103	5.8	P6KE75AS	P6KE75CAS
P6KE82AS	P6KE82CAS	70.1	77.9	86.1	1	1	1	113	5.3	P6KE82AS	P6KE82CAS
P6KE91AS	P6KE91CAS	77.8	86.5	95.5	1	1	1	125	4.8	P6KE91AS	P6KE91CAS
P6KE100AS	P6KE100CAS	85.5	95	105	1	1	1	137	4.4	P6KE100AS	P6KE100CAS
P6KE110AS	P6KE110CAS	94	105	116	1	1	1	152	4	P6KE110AS	P6KE110CAS
P6KE120AS	P6KE120CAS	102	114	126	1	1	1	165	3.6	P6KE120AS	P6KE120CAS
P6KE130AS	P6KE130CAS	111	124	137	1	1	1	179	3.3	P6KE130AS	P6KE130CAS
P6KE150AS	P6KE150CAS	128	143	158	1	1	1	207	2.9	P6KE150AS	P6KE150CAS
P6KE160AS	P6KE160CAS	136	152	168	1	1	1	219	2.7	P6KE160AS	P6KE160CAS



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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Part Number		V _{RWM}	V _{BR}			I _R		V _C @I _{PP}		Marking Code	
			Min.	Max.	I _T	@ V _{RWM}	μA				
UNI	BI	V	V	V	mA	UNI	BI	V	A	UNI	BI
600W Transient Voltage Suppressor											
P6KE170AS	P6KE170CAS	145	162	179	1	1	1	234	2.6	P6KE170AS	P6KE170CAS
P6KE180AS	P6KE180CAS	154	171	189	1	1	1	246	2.4	P6KE180AS	P6KE180CAS
P6KE200AS	P6KE200CAS	171	190	210	1	1	1	274	2.2	P6KE200AS	P6KE200CAS
P6KE220AS	P6KE220CAS	185	209	231	1	1	1	328	1.9	P6KE220AS	P6KE220CAS
P6KE250AS	P6KE250CAS	214	237	263	1	1	1	344	1.8	P6KE250AS	P6KE250CAS

Notes :

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^\circ\text{C}$ per Fig.2
2. Mounted on 100cm² copper pads to each terminal
3. Mounted on a FR4 PCB, single-sided copper, standard footprint



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TYPICAL CHARACTERISTIC CURVES

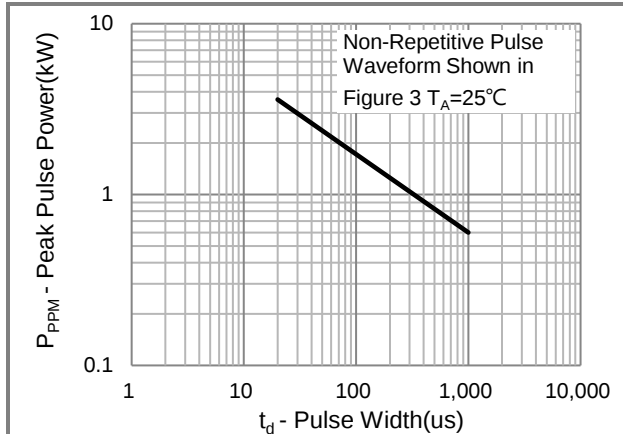


Fig.1 Pulse Power Rating Curve

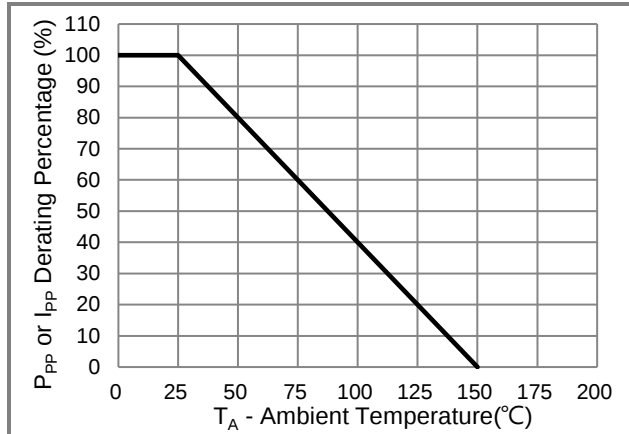


Fig.2 Derating Curve

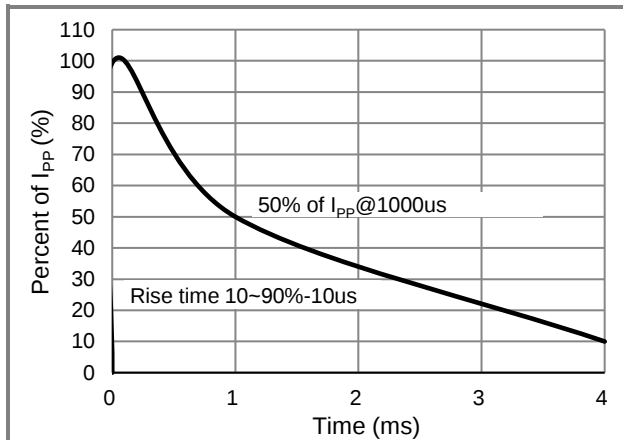


Fig.3 10/1000us Pulse Waveform

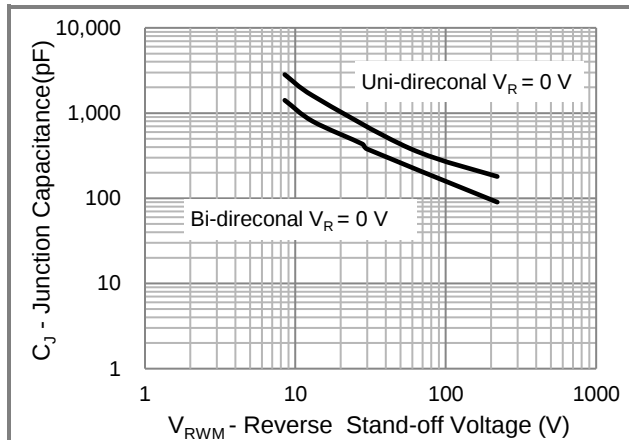


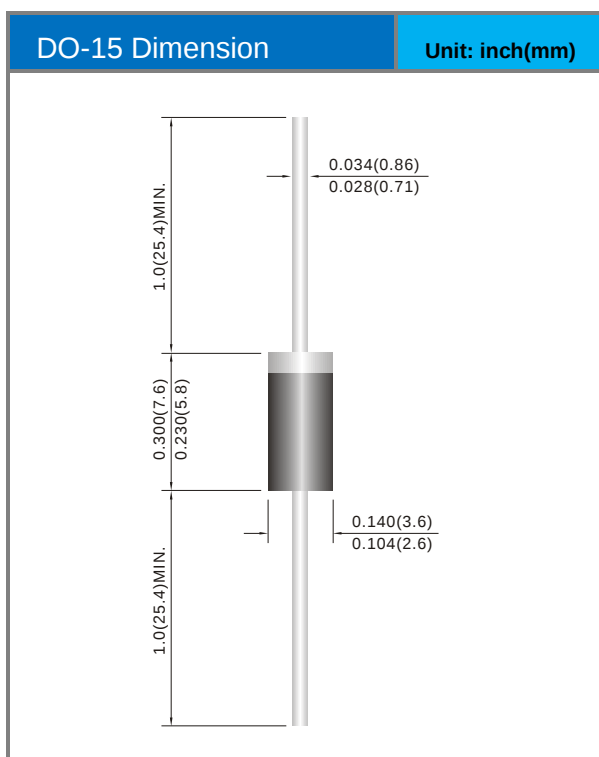
Fig.4 Typical Capacitance

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Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
P6KExxxxAS_AY_00001	DO-15	3K pcs / Ammo	See Table	Halogen free RoHS compliant

Packaging Information





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