

P6SMBJ8.5AS ~ P6SMBJ220CAS Series

Transient Voltage Suppressor

Recongnized File # E210467 (P6SMBJ8.5AS ~ P6SMBJ170CAS Series)

Voltage 8.5~220 V **Power** 600 W

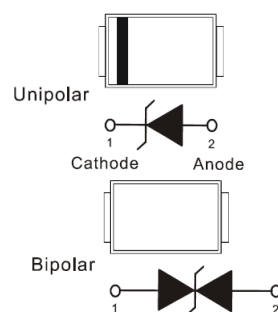
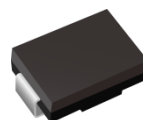
Features

- Fast response time
- Low incremental surge resistance
- Ultra thin profile package for space constrained utilization.
- 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 : Molded plastic, SMB
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0032 ounces, 0.092 grams

SMB



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 = 50 °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⁾	150	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

P6SMBJ8.5AS ~ P6SMBJ220CAS Series

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											
P6SMBJ8.5AS	P6SMBJ8.5CAS	8.5	9.44	10.4	1	10	20	14.4	41.7	B8V5AS	8V5CAS
P6SMBJ9.0AS	P6SMBJ9.0CAS	9	10	11.1	1	5	5	15.4	39	B9V0AS	B9VCAS
P6SMBJ10AS	P6SMBJ10CAS	10	11.1	12.3	1	5	5	17	35.3	B10AS	B10CAS
P6SMBJ11AS	P6SMBJ11CAS	11	12.2	13.5	1	5	5	18.2	33	B11AS	B11CAS
P6SMBJ12AS	P6SMBJ12CAS	12	13.3	14.7	1	1	1	19.9	30.2	B12AS	B12CAS
P6SMBJ13AS	P6SMBJ13CAS	13	14.4	15.9	1	1	1	21.5	28	B13AS	B13CAS
P6SMBJ14AS	P6SMBJ14CAS	14	15.6	17.2	1	1	1	23.2	25.8	B14AS	B14CAS
P6SMBJ15AS	P6SMBJ15CAS	15	16.7	18.5	1	1	1	24.4	24.6	B15AS	B15CAS
P6SMBJ16AS	P6SMBJ16CAS	16	17.8	19.7	1	1	1	26	23.1	B16AS	B16CAS
P6SMBJ17AS	P6SMBJ17CAS	17	18.9	20.9	1	1	1	27.6	21.8	B17AS	B17CAS
P6SMBJ18AS	P6SMBJ18CAS	18	20	22.1	1	1	1	29.2	20.6	B18AS	B18CAS
P6SMBJ20AS	P6SMBJ20CAS	20	22.2	24.5	1	1	1	32.4	18.6	B20AS	B20CAS
P6SMBJ22AS	P6SMBJ22CAS	22	24.4	26.9	1	1	1	35.5	16.9	B22AS	B22CAS
P6SMBJ24AS	P6SMBJ24CAS	24	26.7	29.5	1	1	1	38.9	15.5	B24AS	B24CAS
P6SMBJ26AS	P6SMBJ26CAS	26	28.9	31.9	1	1	1	42.1	14.3	B26AS	B26CAS
P6SMBJ28AS	P6SMBJ28CAS	28	31.1	34.4	1	1	1	45.4	13.3	B28AS	B28CAS
P6SMBJ30AS	P6SMBJ30CAS	30	33.3	36.8	1	1	1	48.4	12.4	B30AS	B30CAS
P6SMBJ33AS	P6SMBJ33CAS	33	36.7	40.6	1	1	1	53.3	11.3	B33AS	B33CAS
P6SMBJ36AS	P6SMBJ36CAS	36	40	44.2	1	1	1	58.1	10.4	B36AS	B36CAS
P6SMBJ40AS	P6SMBJ40CAS	40	44.4	49.1	1	1	1	64.5	9.3	B40AS	B40CAS
P6SMBJ43AS	P6SMBJ43CAS	43	47.8	52.8	1	1	1	69.4	8.7	B43AS	B43CAS
P6SMBJ45AS	P6SMBJ45CAS	45	50	55.3	1	1	1	72.7	8.7	B45AS	B45CAS
P6SMBJ48AS	P6SMBJ48CAS	48	53.3	58.9	1	1	1	77.4	8.3	B48AS	B48CAS
P6SMBJ51AS	P6SMBJ51CAS	51	56.7	62.7	1	1	1	82.4	7.3	B51AS	B51CAS
P6SMBJ54AS	P6SMBJ54CAS	54	60	66.3	1	1	1	87.1	6.9	B54AS	B54CAS
P6SMBJ58AS	P6SMBJ58CAS	58	64.4	71.2	1	1	1	93.6	6.5	B58AS	B58CAS
P6SMBJ60AS	P6SMBJ60CAS	60	66.7	73.7	1	1	1	96.8	6.2	B60AS	B60CAS
P6SMBJ64AS	P6SMBJ64CAS	64	71.1	78.6	1	1	1	103	5.9	B64AS	B64CAS
P6SMBJ70AS	P6SMBJ70CAS	70	77.8	86	1	1	1	113	5.3	B70AS	B70CAS
P6SMBJ75AS	P6SMBJ75CAS	75	83.3	92.1	1	1	1	121	5	B75AS	B75CAS

P6SMBJ8.5AS ~ P6SMBJ220CAS Series

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											
P6SMBJ78AS	P6SMBJ78CAS	78	86.7	95.8	1	1	1	126	4.8	B78AS	B78CAS
P6SMBJ85AS	P6SMBJ85CAS	85	94.4	104	1	1	1	137	4.4	B85AS	B85CAS
P6SMBJ90AS	P6SMBJ90CAS	90	100	111	1	1	1	147	4.1	B90AS	B90CAS
P6SMBJ100AS	P6SMBJ100CAS	100	111	123	1	1	1	162	3.7	B100AS	100CAS
P6SMBJ110AS	P6SMBJ110CAS	110	122	135	1	1	1	177	3.4	B110AS	110CAS
P6SMBJ120AS	P6SMBJ120CAS	120	133	147	1	1	1	193	3.1	B120AS	120CAS
P6SMBJ130AS	P6SMBJ130CAS	130	144	159	1	1	1	209	2.9	B130AS	130CAS
P6SMBJ150AS	P6SMBJ150CAS	150	167	185	1	1	1	243	2.5	B150AS	150CAS
P6SMBJ160AS	P6SMBJ160CAS	160	178	197	1	1	1	259	2.3	B160AS	160CAS
P6SMBJ170AS	P6SMBJ170CAS	170	189	209	1	1	1	275	2.2	B170AS	170CAS
P6SMBJ180AS	P6SMBJ180CAS	180	198	222	1	1	1	292	2.1	B180AS	180CAS
P6SMBJ190AS	P6SMBJ190CAS	190	209	243.2	1	1	1	308	2	B190AS	190CAS
P6SMBJ200AS	P6SMBJ200CAS	200	220	247	1	1	1	324	1.9	B200AS	200CAS
P6SMBJ210AS	P6SMBJ210CAS	210	231	268.8	1	1	1	340	1.8	B210AS	210CAS
P6SMBJ220AS	P6SMBJ220CAS	220	242	272	1	1	1	356	1.7	B220AS	220CAS

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

P6SMBJ8.5AS ~ P6SMBJ220CAS Series

TYPICAL CHARACTERISTIC CURVES

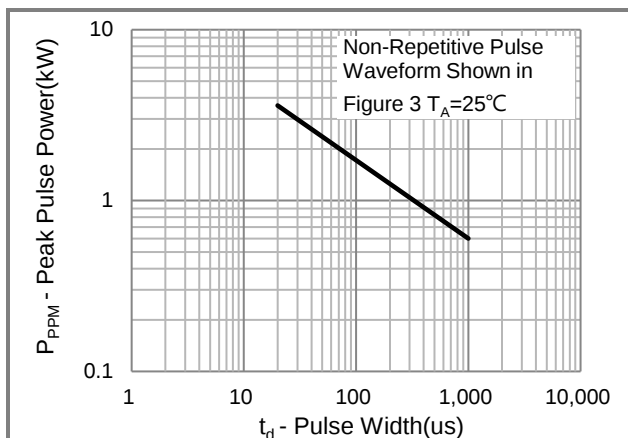


Fig.1 Pulse Power Rating Curve

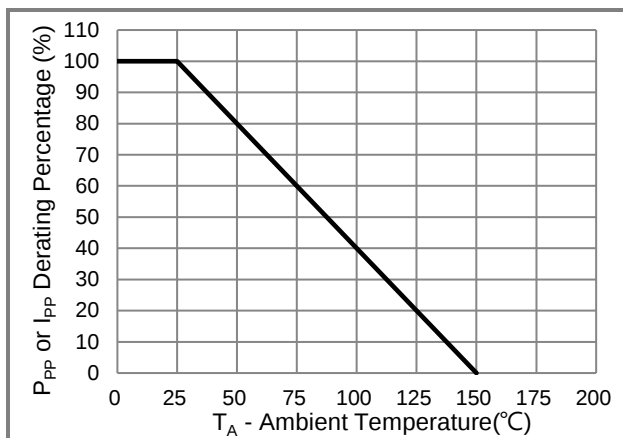


Fig.2 Derating Curve

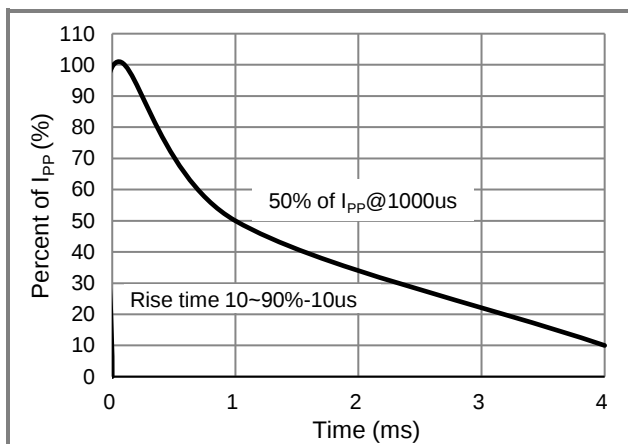


Fig.3 10/1000us Pulse Waveform

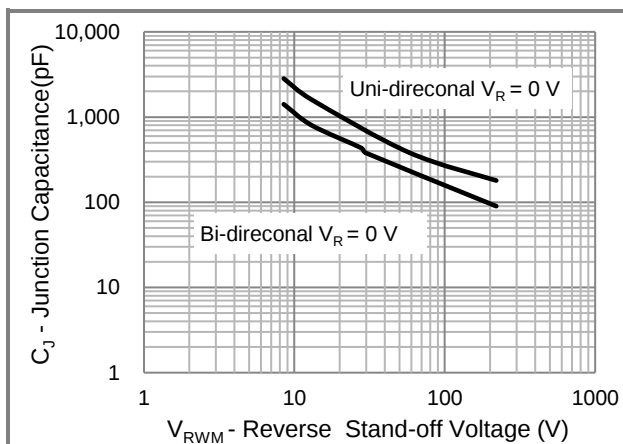


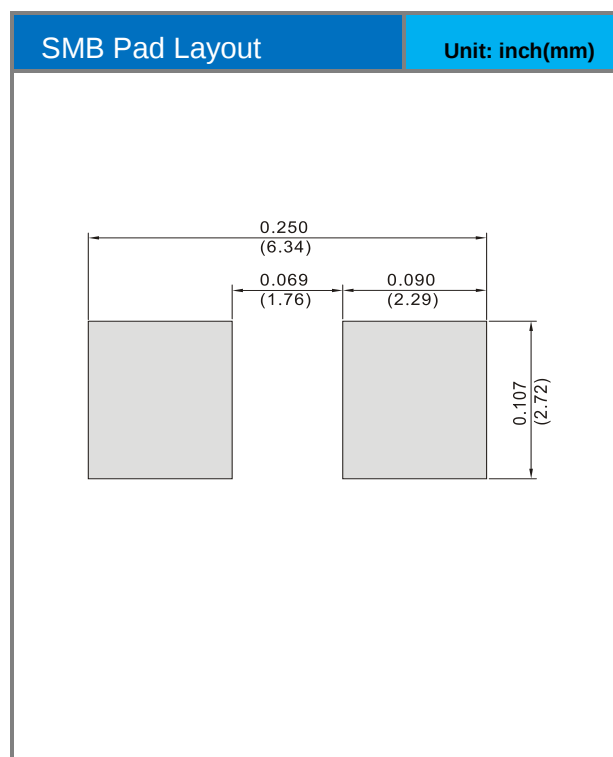
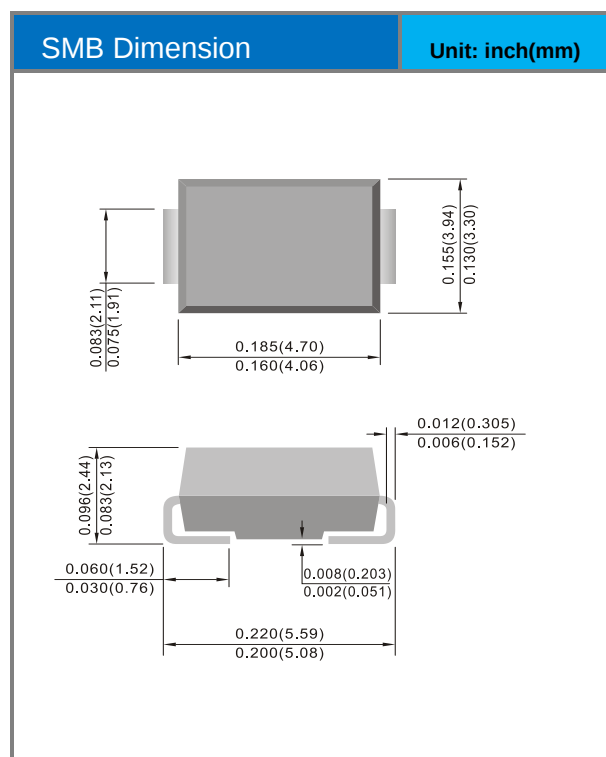
Fig.4 Typical Capacitance

P6SMBJ8.5AS ~ P6SMBJ220CAS Series

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
P6SMBJxxxxAS	SMB	0.8K pcs / 7" reel	See Table

Packaging Information & Mounting Pad Layout



P6SMBJ8.5AS ~ P6SMBJ220CAS Series

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Panjit:](#)

[P6SMBJ200AS_R1_00001](#)