



P6SMBJ-AU SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR POWER 600 Watt

STAND-OFF VOLTAGE

5 to 70 Volt

SMB / DO-214AA

Unit : inch(mm)

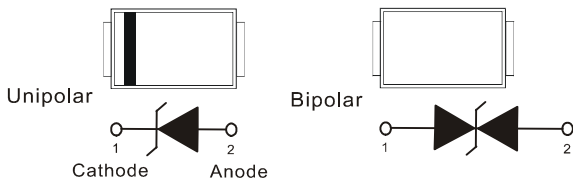
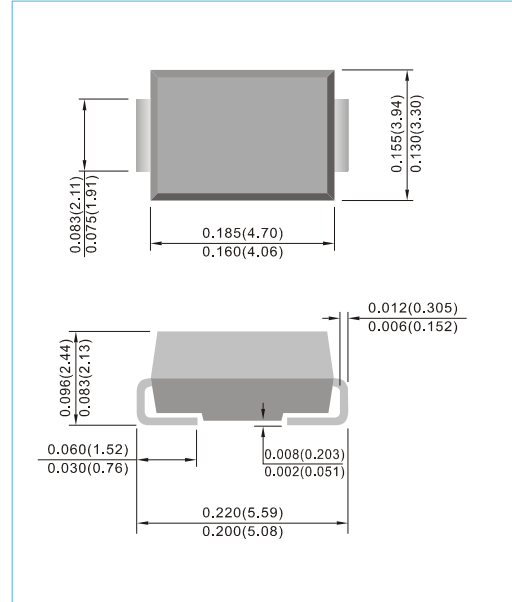
Recongnized File # E210467

FEATURES

- For surface mounted applications in order to optimize board space
- AEC-Q101 qualified
- Low inductance
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- High temperature soldering : 260°C /10 seconds at terminals
- ESD IEC-61000-4-2 Air ± 30kV, Contact ± 30kV
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: JEDEC DO-214AA, Molded plastic over passivated junction.
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard Packaging: 12mm tape (EIA-481)
- Weight: 0.003 ounces, 0.092 grams



DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types P6SMBJ5.0 thru types P6SMBJ70.
 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
Peak Pulse Power Dissipation on tp=10/1000µs waveform (Notes 1,2, Fig.1)	P _{PP}	600	Watts
Power Dissipation on Infinite Heat Sink at T _L =50°C	P _D	5	Watts
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (Notes 2,3)	I _{FSM}	100	Amps
Peak Pulse Current on tp=10/1000µs waveform (Notes 1) Fig.3	I _{PPM}	see Table 1	Amps
Typical Thermal Resistance Junction to Air (Notes 2)	R _{θJA}	60	°C / W
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}	-55 to +150	°C

NOTES :

1. Non-repetitive current pulse, per Fig.3 and derated above T_A = 25°C per Fig. 2.
2. Mounted on 5mm² (0.13mm thick) land areas.
3. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute 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.



P6SMBJ-AU SERIES

Part Number		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage		Max. Clamp Voltage 10/1000µs	Peak Pulse Current 10/1000µs	Marking Code	
			$V_{BR} @ I_T$			$I_R @ V_{RWM}$					
		V_{RWM} (Notes 4)	Min.	Max.	I_T	UNI	BI	$V_C @ I_{PP}$	I_{PP}		
UNI	BI	V	V	V	mA	µA	µA	V	A	UNI	BI
600W Transient Voltage Suppressor											
P6SMBJ5.0A-AU	P6SMBJ5.0CA-AU	5	6.4	7.07	10	800	1600	9.2	65.2	KE	AE
P6SMBJ6.0A-AU	P6SMBJ6.0CA-AU	6	6.67	7.37	10	800	1600	10.3	58.3	KG	AG
P6SMBJ6.5A-AU	P6SMBJ6.5CA-AU	6.5	7.22	7.98	10	500	1000	11.2	53.6	KK	AK
P6SMBJ7.0A-AU	P6SMBJ7.0CA-AU	7	7.78	8.6	10	200	400	12.0	50	KM	AM
P6SMBJ7.5A-AU	P6SMBJ7.5CA-AU	7.5	8.33	9.21	1	100	200	12.9	46.5	KP	AP
P6SMBJ8.0A-AU	P6SMBJ8.0CA-AU	8	8.89	9.83	1	50	100	13.6	44.1	KR	AR
P6SMBJ8.5A-AU	P6SMBJ8.5CA-AU	8.5	9.44	10.4	1	10	20	14.4	41.7	KT	AT
P6SMBJ9.0A-AU	P6SMBJ9.0CA-AU	9	10	11.1	1	5	5	15.4	39	KV	AV
P6SMBJ10A-AU	P6SMBJ10CA-AU	10	11.1	12.3	1	5	5	17	35.3	KX	AX
P6SMBJ11A-AU	P6SMBJ11CA-AU	11	12.2	13.5	1	1	1	18.2	33	KZ	AZ
P6SMBJ12A-AU	P6SMBJ12CA-AU	12	13.3	14.7	1	1	1	19.9	30.2	LE	BE
P6SMBJ13A-AU	P6SMBJ13CA-AU	13	14.4	15.9	1	1	1	21.5	27.9	LG	BG
P6SMBJ14A-AU	P6SMBJ14CA-AU	14	15.6	17.2	1	1	1	23.2	25.8	LK	BK
P6SMBJ15A-AU	P6SMBJ15CA-AU	15	16.7	18.5	1	1	1	24.4	24	LM	BM
P6SMBJ16A-AU	P6SMBJ16CA-AU	16	17.8	19.7	1	1	1	26	23.1	LP	BP
P6SMBJ17A-AU	P6SMBJ17CA-AU	17	18.9	20.9	1	1	1	27.6	21.7	LR	BR
P6SMBJ18A-AU	P6SMBJ18CA-AU	18	20	22.1	1	1	1	29.2	20.5	LT	BT
P6SMBJ20A-AU	P6SMBJ20CA-AU	20	22.2	24.5	1	1	1	32.4	18.5	LV	BV
P6SMBJ22A-AU	P6SMBJ22CA-AU	22	24.4	27	1	1	1	35.5	16.9	LX	BX
P6SMBJ24A-AU	P6SMBJ24CA-AU	24	26.7	29.5	1	1	1	38.9	15.4	LZ	BZ
P6SMBJ26A-AU	P6SMBJ26CA-AU	26	28.9	31.9	1	1	1	42.1	14.2	ME	CE
P6SMBJ28A-AU	P6SMBJ28CA-AU	28	31.1	34.4	1	1	1	45.4	13.2	MG	CG
P6SMBJ30A-AU	P6SMBJ30CA-AU	30	33.3	36.8	1	1	1	48.4	12.4	MK	CK
P6SMBJ33A-AU	P6SMBJ33CA-AU	33	36.7	40.6	1	1	1	53.3	11.3	MM	CM
P6SMBJ36A-AU	P6SMBJ36CA-AU	36	40	44.2	1	1	1	58.1	10.3	MP	CP
P6SMBJ40A-AU	P6SMBJ40CA-AU	40	44.4	49.1	1	1	1	64.5	9.3	MR	CR
P6SMBJ43A-AU	P6SMBJ43CA-AU	43	47.8	52.8	1	1	1	69.4	8.6	MT	CT
P6SMBJ45A-AU	P6SMBJ45CA-AU	45	50	55.3	1	1	1	72.7	8.3	MV	CV
P6SMBJ48A-AU	P6SMBJ48CA-AU	48	53.3	58.9	1	1	1	77.4	7.7	MX	CX
P6SMBJ51A-AU	P6SMBJ51CA-AU	51	56.7	62.7	1	1	1	82.4	7.3	MZ	CZ
P6SMBJ54A-AU	P6SMBJ54CA-AU	54	60	66.3	1	1	1	87.1	6.9	NE	DE
P6SMBJ58A-AU	P6SMBJ58CA-AU	58	64.4	71.2	1	1	1	93.6	6.4	NG	DG
P6SMBJ60A-AU	P6SMBJ60CA-AU	60	66.7	73.7	1	1	1	96.8	6.2	NK	DK
P6SMBJ64A-AU	P6SMBJ64CA-AU	64	71.1	78.6	1	1	1	103	5.8	NM	DM
P6SMBJ70A-AU	P6SMBJ70CA-AU	70	77.8	86	1	1	1	113	5.3	NP	DP



P6SMBJ-AU SERIES

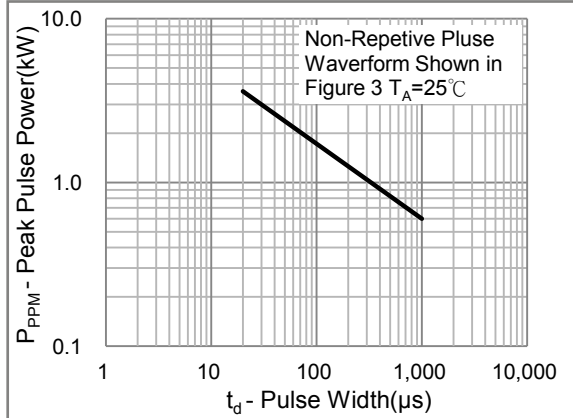


Fig.1 Peak Pulse Power Rating

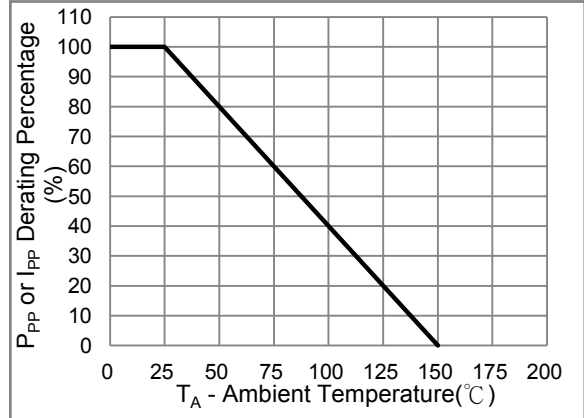


Fig.2 Derating Curve

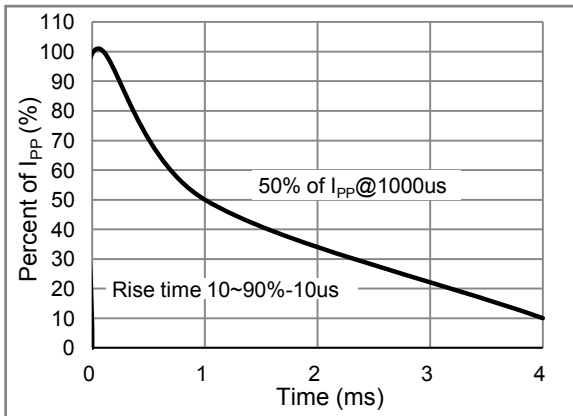


Fig.3 10/1000μs Pulse Waveform

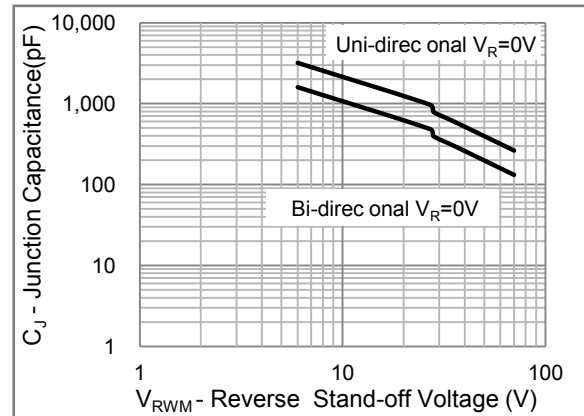


Fig.4 Typical Capacitance

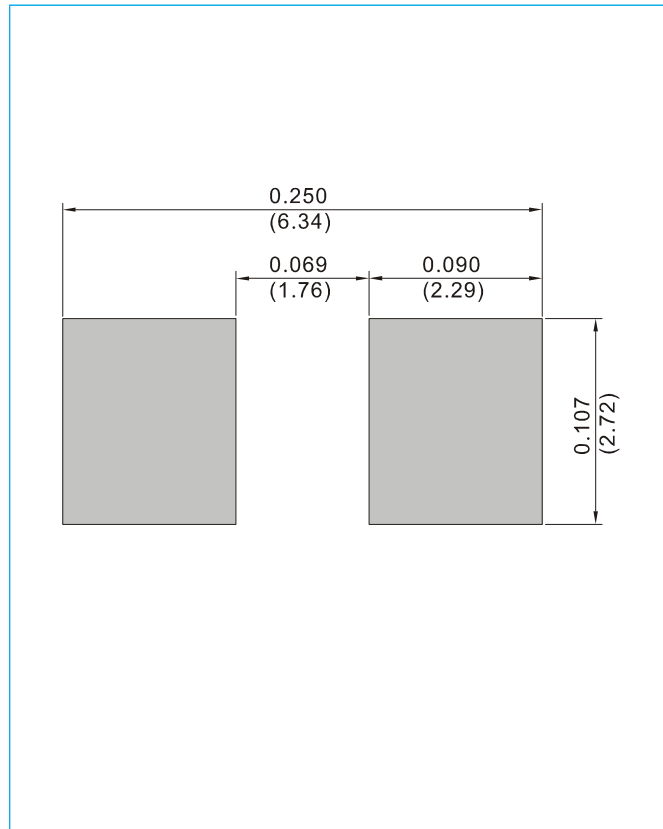


P6SMBJ-AU SERIES

MOUNTING PAD LAYOUT

SMB / DO-214AA

Unit : inch(mm)



ORDER INFORMATION

- Packing information
T/R - 3K per 13" plastic Reel
T/R - 0.8K per 7" plastic Reel



P6SMBJ-AU SERIES

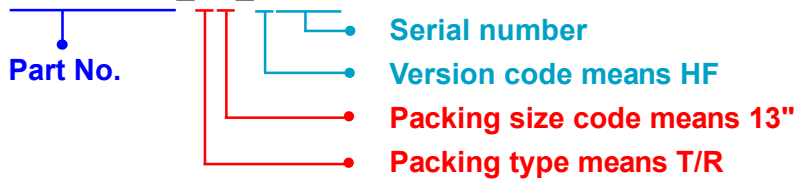
Part No._packing code_Version

P6SMBJ5.0-AU_R1_000A1

P6SMBJ5.0-AU_R2_000A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
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			



P6SMBJ-AU 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 relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, 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.