

TVS Diodes - Surface Mount - 600 Watt Specifications - P6SMBJ Series Electrical Characteristics

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage Vwm (Volts)	Breakdown Voltage		Maximum Stand By Current @Vwm+ Id (µA)	10/1000µs Maximum Clamping Voltage @Ippm# Vc Max (Volts)	10/1000µs Rated Peak Impulse Current Ippm# (Amperes)
				Vbr Min (Volts)	@It (mA)			
P6SMBJ5.0	KD	AD	5.0	6.40	10	800.0	9.6	62.5
P6SMBJ5.0A	KE	AE	5.0	6.40	10	800.0	9.2	65.2
P6SMBJ6.0	KF	AF	6.0	6.67	10	800.0	11.4	52.6
P6SMBJ6.0A	KG	AG	6.0	6.67	10	800.0	10.3	58.3
P6SMBJ6.5	KH	AH	6.5	7.22	10	500.0	12.3	48.7
P6SMBJ6.5A	KK	AK	6.5	7.22	10	500.0	11.2	53.6
P6SMBJ7.0	KL	AL	7.0	7.78	10	200.0	13.3	45.1
P6SMBJ7.0A	KM	AM	7.0	7.78	10	200.0	12.0	50.0
P6SMBJ7.5	KN	AN	7.5	8.33	1	100.0	14.3	42.0
P6SMBJ7.5A	KP	AP	7.5	8.33	1	100.0	12.9	46.5
P6SMBJ8.0	KQ	AQ	8.0	8.89	1	50.0	15.0	40.0
P6SMBJ8.0A	KR	AR	8.0	8.89	1	50.0	13.6	44.1
P6SMBJ8.5	KS	AS	8.5	9.44	1	20.0	15.9	37.7
P6SMBJ8.5A	KT	AT	8.5	9.44	1	20.0	14.4	41.7
P6SMBJ9.0	KU	AU	9.0	10.00	1	10.0	16.9	35.5
P6SMBJ9.0A	KV	AV	9.0	10.00	1	10.0	15.4	39.0
P6SMBJ10	KW	AW	10.0	11.10	1	5.0	18.8	31.9
P6SMBJ10A	KX	AX	10.0	11.10	1	5.0	17.0	35.3
P6SMBJ11	KY	AY	11.0	12.20	1	5.0	20.1	29.9
P6SMBJ11A	KZ	AZ	11.0	12.20	1	5.0	18.2	33.0
P6SMBJ12	LD	BD	12.0	13.30	1	5.0	22.0	27.3
P6SMBJ12A	LE	BE	12.0	13.30	1	5.0	19.9	30.2
P6SMBJ13	LF	BF	13.0	14.40	1	5.0	23.8	25.2
P6SMBJ13A	LG	BG	13.0	14.40	1	5.0	21.5	27.9
P6SMBJ14	LH	BH	14.0	15.60	1	5.0	25.8	23.3
P6SMBJ14A	LK	BK	14.0	15.60	1	5.0	23.2	25.8

* = Add "C" or "CA" suffix for bidirectional device types.

+ = For Bidirectional Types Having Vwm <= 10V, their Id limit is doubled.

= See General Information for Impulse Current Waveform.

TVS Diodes - Surface Mount - 600 Watt Specifications - P6SMBJ Series Electrical Characteristics
- (Continued)

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V _{wm} (Volts)	Breakdown Voltage		Maximum Stand By Current @V _{wm} + I _d (μ A)	10/1000 μ s Maximum Clamping Voltage @I _{ppm} # V _c Max (Volts)	10/1000 μ s Rated Peak Impulse Current I _{ppm} # (Amperes)
				V _{br} Min (Volts)	@I _t (mA)			
P6SMBJ15	LL	BL	15.0	16.70	1	5.0	26.9	22.3
P6SMBJ15A	LM	BM	15.0	16.70	1	5.0	24.4	24.0
P6SMBJ16	LN	BN	16.0	17.80	1	5.0	28.8	20.8
P6SMBJ16A	LP	BP	16.0	17.80	1	5.0	26.0	23.1
P6SMBJ17	LQ	BQ	17.0	18.90	1	5.0	30.5	19.7
P6SMBJ17A	LR	BR	17.0	18.90	1	5.0	27.6	21.7
P6SMBJ18	LS	BS	18.0	20.00	1	5.0	32.2	18.6
P6SMBJ18A	LT	BT	18.0	20.00	1	5.0	29.2	20.5
P6SMBJ20	LU	BU	20.0	22.20	1	5.0	35.8	16.7
P6SMBJ20A	LV	BV	20.0	22.20	1	5.0	32.4	18.5
P6SMBJ22	LW	BW	22.0	24.40	1	5.0	39.4	15.2
P6SMBJ22A	LX	BX	22.0	24.40	1	5.0	35.5	16.9
P6SMBJ24	LY	BY	24.0	26.70	1	5.0	43.0	14.0
P6SMBJ24A	LZ	BZ	24.0	26.70	1	5.0	38.9	15.4
P6SMBJ26	MD	CD	26.0	28.90	1	5.0	46.6	12.4
P6SMBJ26A	ME	CE	26.0	28.90	1	5.0	42.1	14.2
P6SMBJ28	MF	CF	28.0	31.10	1	5.0	50.0	12.0
P6SMBJ28A	MG	CG	28.0	31.10	1	5.0	45.4	13.2
P6SMBJ30	MH	CH	30.0	33.30	1	5.0	53.5	11.2
P6SMBJ30A	MK	CK	30.0	33.30	1	5.0	46.6	12.4
P6SMBJ33	ML	CL	33.0	36.70	1	5.0	59.0	10.2
P6SMBJ33A	MM	CM	33.0	36.70	1	5.0	53.3	11.3
P6SMBJ36	MN	CN	36.0	40.00	1	5.0	64.3	9.3
P6SMBJ36A	MP	CP	36.0	40.00	1	5.0	58.1	10.3
P6SMBJ40	MQ	CQ	40.0	44.40	1	5.0	71.4	8.4
P6SMBJ40A	MR	CR	40.0	44.40	1	5.0	64.5	9.3

* = Add "C" or "CA" suffix for bidirectional device types.

+ = For Bidirectional Types Having V_{wm} <= 10V, their I_d limit is doubled.

= See General Information for Impulse Current Waveform.

TVS Diodes - Surface Mount - 600 Watt Specifications - P6SMBJ Series Electrical Characteristics
- (Continued)

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V _{wm} (Volts)	Breakdown Voltage		Maximum Stand By Current @V _{wm} + Id (μ A)	10/1000 μ s Maximum Clamping Voltage @I _{ppm} # V _c Max (Volts)	10/1000 μ s Rated Peak Impulse Current I _{ppm} # (Amperes)
				V _{br} Min (Volts)	@I _t (mA)			
P6SMBJ43	MS	CS	43.0	47.80	1	5.0	76.7	7.8
P6SMBJ43A	MT	CT	43.0	47.80	1	5.0	69.4	8.6
P6SMBJ45	MU	CU	45.0	50.00	1	5.0	80.3	7.5
P6SMBJ45A	MV	CV	45.0	50.00	1	5.0	72.7	8.3
P6SMBJ48	MW	CW	48.0	53.30	1	5.0	85.5	7.0
P6SMBJ48A	MX	CX	48.0	53.30	1	5.0	77.4	7.7
P6SMBJ51	MY	CY	51.0	56.70	1	5.0	91.1	6.6
P6SMBJ51A	MZ	CZ	51.0	56.70	1	5.0	82.4	7.3
P6SMBJ54	ND	DD	54.0	60.00	1	5.0	96.3	6.2
P6SMBJ54A	NE	DE	54.0	60.00	1	5.0	87.1	6.9
P6SMBJ58	NF	DF	58.0	64.40	1	5.0	103.0	5.8
P6SMBJ58A	NG	DG	58.0	64.40	1	5.0	93.6	6.4
P6SMBJ60	NH	DH	60.0	66.70	1	5.0	107.0	5.6
P6SMBJ60A	NK	DK	60.0	66.70	1	5.0	96.8	6.2
P6SMBJ64	NL	DL	64.0	71.10	1	5.0	114.0	5.3
P6SMBJ64A	NM	DM	64.0	71.10	1	5.0	103.0	5.8
P6SMBJ70	NN	DN	70.0	77.80	1	5.0	125.0	4.8
P6SMBJ70A	NP	DP	70.0	77.80	1	5.0	113.0	5.3
P6SMBJ75	NQ	DQ	75.0	83.30	1	5.0	134.0	4.5
P6SMBJ75A	NR	DR	75.0	83.30	1	5.0	121.0	4.9
P6SMBJ78	NS	DS	78.0	86.70	1	5.0	139.0	4.3
P6SMBJ78A	NT	DT	78.0	86.70	1	5.0	126.0	4.7
P6SMBJ85	NU	DU	85.0	94.40	1	5.0	151.0	3.9
P6SMBJ85A	NV	DV	85.0	94.40	1	5.0	137.0	4.4
P6SMBJ90	NW	DW	90.0	100.00	1	5.0	160.0	3.8
P6SMBJ90A	NX	DX	90.0	100.00	1	5.0	146.0	4.1

* = Add "C" or "CA" suffix for bidirectional device types.

+ = For Bidirectional Types Having V_{wm} <= 10V, their Id limit is doubled.

= See General Information for Impulse Current Waveform.

TVS Diodes - Surface Mount - 600 Watt Specifications - P6SMBJ Series Electrical Characteristics
 - (Continued)

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V _{wm} (Volts)	Breakdown Voltage		Maximum Stand By Current @V _{wm} + I _d (μA)	10/1000μs Maximum Clamping Voltage @I _{ppm} # V _c Max (Volts)	10/1000μs Rated Peak Impulse Current I _{ppm} # (Amperes)
				V _{br} Min (Volts)	@I _t (mA)			
P6SMBJ100	NY	DY	100.0	111.00	1	5.0	179.0	3.4
P6SMBJ100A	NZ	DZ	100.0	111.00	1	5.0	162.0	3.7
P6SMBJ110	PD	ED	110.0	122.00	1	5.0	196.0	3.0
P6SMBJ110A	PE	EE	110.0	122.00	1	5.0	177.0	3.4
P6SMBJ120	PF	EF	120.0	133.00	1	5.0	214.0	2.8
P6SMBJ120A	PG	EG	120.0	133.00	1	5.0	193.0	3.1
P6SMBJ130	PH	EH	130.0	144.00	1	5.0	231.0	2.6
P6SMBJ130A	PK	EK	130.0	144.00	1	5.0	209.0	2.9
P6SMBJ150	PL	EL	150.0	167.00	1	5.0	268.0	2.2
P6SMBJ150A	PM	EM	150.0	167.00	1	5.0	243.0	2.5
P6SMBJ160	PN	EN	160.0	178.00	1	5.0	287.0	2.1
P6SMBJ160A	PP	EP	160.0	178.00	1	5.0	259.0	2.3
P6SMBJ170	PQ	EQ	170.0	189.00	1	5.0	304.0	2.0
P6SMBJ170A	PR	ER	170.0	189.00	1	5.0	275.0	2.2

* = Add "C" or "CA" suffix for bidirectional device types.

+ = For Bidirectional Types Having V_{wm} <= 10V, their I_d limit is doubled.

= See General Information for Impulse Current Waveform.

TVS Diodes - Surface Mount - 600 Watt - P6SMBJ Series Features

P6SMBJ Series Features

- 600 watt peak pulse power dissipation
- Available in voltages from 5.0V to 170V
- Unidirectional and bidirectional
- Glass passivated junction
- Low clamping factor
- Available in bulk or tape and reel (Reel quantity = 3,000 pieces)
- Each device 100% surge tested
- Tape and Reel to EIA Standard RS-481-A
- UL 497B Recognized, File # E135015 (5.0V - 75V)

Absolute Maximum Ratings

- Peak pulse power dissipation (Pppm) at 25°C..... 600W
- Steady state power dissipation at 25°C 5W
- Operating and storage temperatures..... -55°C to + 150°C

Mechanical Characteristics

- DO214AA package
- UL94V-0 Thermoset Epoxy
- Solder plated terminals
- Solderable per MIL-STD-750 Method 2026

Mechanical Dimensions

