THE DATASHEET OF

SMBJP6KE36CAHE3-TP

	E480232

Features

- AEC-Q101 Qualified
- For Surface Mount Applicationsin Order to Optimize Board Space
- Low Inductance
- Available in Both Unidirectional and Bidirectional Construction and Suffix"C" Designates Bidirectional Type
- Halogen Free. "Green" Device (Note 1)
- Excellent Clamping Capability
- Fast Response Time: Typical Less than 1.0ps From 0 Volts to V_{BR} Minimum
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Mechanical Data

- Polarity: Color Band Denotes Positive End(cathode) Except Bi-directional Types
- Maximum Soldering Temperature:260°C for 10 Seconds
- Manufacturing Code Added for Better Tracking
- Terminals: Solderable Per MIL-STD-750, Method 2026

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Thermal Resistance : 20°C/W Junction to Lead
- Thermal Resistance : 25°C/W Junction to Case

Electrical Characteristics @ 25°C Unless Otherwise Specified

Peak Pulse Power Surge Current on 10/1000μs Waveform	I_{PP}	See the Table	Note 3
Peak Pulse Power Dissipation	P_{PP}	600W	Note 3

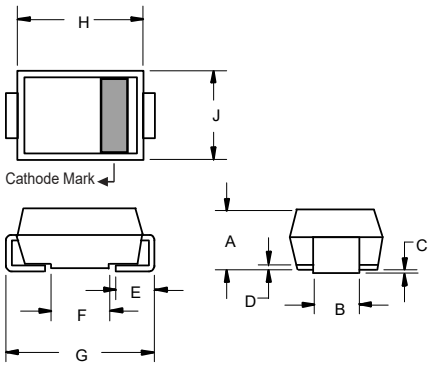
NOTES:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
3. Non-repetitive current pulse, per Fig.3 and derated above T_A=25 °C per Fig.4.

Pin Configuration:

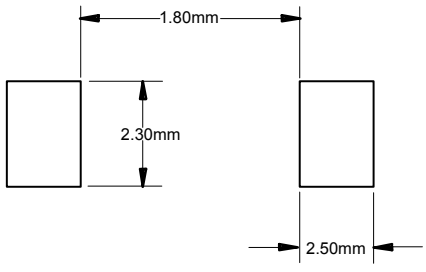
600 Watt TVS
12 to 220 Volts

SMB (DO-214AA)
(LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

SUGGESTED SOLDER PAD LAYOUT



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC PART NUMBER	REVERSE STAND-OFF VOLTAGE V_{WM}	BREAKDOWN VOLTAGE $V_{(BR)}$ @I_T (VOLTS)			MAXIMUM CLAMPING VOLTAGE@I_{PP}	PEAK PULSE CURRENT I_{PP}	MAXIMUM REVERSE LEAKAGE @ V_{WM} I_D	MARKING CODE
	VOLTS	MIN	MAX	I_T(mA)	VOLTS	(AMPS)	(μA)	
SMBJP6KE12AHE3	10.20	11.40	12.60	1	16.7	36.5	5	12A
SMBJP6KE13AHE3	11.10	12.40	13.70	1	18.2	33.5	1	13A
SMBJP6KE15AHE3	12.80	14.30	15.80	1	21.2	28.8	1	15A
SMBJP6KE16AHE3	13.60	15.20	16.80	1	22.5	27.1	1	16A
SMBJP6KE18AHE3	15.30	17.10	18.90	1	25.5	24.2	1	18A
SMBJP6KE20AHE3	17.10	19.00	21.00	1	27.7	22.0	1	20A
SMBJP6KE22AHE3	18.80	20.90	23.10	1	30.6	19.9	1	22A
SMBJP6KE24AHE3	20.50	22.80	25.20	1	33.2	18.4	1	24A
SMBJP6KE27AHE3	23.10	25.70	28.40	1	37.5	16.3	1	27A
SMBJP6KE30AHE3	25.60	28.50	31.50	1	41.4	14.7	1	30A
SMBJP6KE33AHE3	28.20	31.40	34.70	1	45.7	13.3	1	33A
SMBJP6KE36AHE3	30.80	34.20	37.80	1	49.9	12.2	1	36A
SMBJP6KE39AHE3	33.30	37.10	41.00	1	53.9	11.3	1	39A
SMBJP6KE43AHE3	36.80	40.90	45.20	1	59.3	10.3	1	43A
SMBJP6KE47AHE3	40.20	44.70	49.40	1	64.8	9.4	1	47A
SMBJP6KE51AHE3	43.60	48.50	53.60	1	70.1	8.7	1	51A
SMBJP6KE56AHE3	47.80	53.20	58.80	1	77.0	7.9	1	56A
SMBJP6KE62AHE3	53.00	58.90	65.10	1	85.0	7.2	1	62A
SMBJP6KE68AHE3	58.10	64.60	71.40	1	92.0	6.6	1	68A
SMBJP6KE75AHE3	64.10	71.30	78.80	1	103.0	5.9	1	75A
SMBJP6KE82AHE3	70.10	77.90	86.10	1	113.0	5.4	1	82A
SMBJP6KE91AHE3	77.80	86.50	95.50	1	125.0	4.9	1	91A
SMBJP6KE100AHE3	85.50	95.00	105.00	1	137.0	4.5	1	100A
SMBJP6KE110AHE3	94.00	105.00	116.00	1	152.0	4.0	1	110A
SMBJP6KE120AHE3	102.00	114.00	126.00	1	165.0	3.7	1	120A
SMBJP6KE130AHE3	111.00	124.00	137.00	1	179.0	3.4	1	130A
SMBJP6KE150AHE3	128.00	143.00	158.00	1	207.0	2.9	1	150A
SMBJP6KE160AHE3	136.00	152.00	168.00	1	219.0	2.8	1	160A
SMBJP6KE170AHE3	145.00	162.00	179.00	1	234.0	2.6	1	170A
SMBJP6KE180AHE3	154.00	171.00	189.00	1	246.0	2.5	1	180A
SMBJP6KE200AHE3	171.00	190.00	210.00	1	274.0	2.2	1	200A
SMBJP6KE220AHE3	185.00	209.00	231.00	1	328.0	1.9	1	220A

For bi-directional type having V_{rwm} of 10 volts and less, the I_R limit is double.
The available parts are “A” type only, the parts without A (V_{BR} is ±10%) is not available.

Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC PART NUMBER	REVERSE STAND-OFF VOLTAGE V_{WM}	BREAKDOWN VOLTAGE $V_{(BR)}$ @I_T (VOLTS)			MAXIMUM CLAMPING VOLTAGE@I_{PP}	PEAK PULSE CURRENT I_{PP}	MAXIMUM REVERSE LEAKAGE @ V_{WM} I_D	MARKING CODE
	VOLTS	MIN	MAX	I_T(mA)	VOLTS	(AMPS)	(μA)	
SMBJP6KE12CAHE3	10.20	11.40	12.60	1	16.7	36.5	5	12C
SMBJP6KE13CAHE3	11.10	12.40	13.70	1	18.2	33.5	1	13C
SMBJP6KE15CAHE3	12.80	14.30	15.80	1	21.2	28.8	1	15C
SMBJP6KE16CAHE3	13.60	15.20	16.80	1	22.5	27.1	1	16C
SMBJP6KE18CAHE3	15.30	17.10	18.90	1	25.5	24.2	1	18C
SMBJP6KE20CAHE3	17.10	19.00	21.00	1	27.7	22.0	1	20C
SMBJP6KE22CAHE3	18.80	20.90	23.10	1	30.6	19.9	1	22C
SMBJP6KE24CAHE3	20.50	22.80	25.20	1	33.2	18.4	1	24C
SMBJP6KE27CAHE3	23.10	25.70	28.40	1	37.5	16.3	1	27C
SMBJP6KE30CAHE3	25.60	28.50	31.50	1	41.4	14.7	1	30C
SMBJP6KE33CAHE3	28.20	31.40	34.70	1	45.7	13.3	1	33C
SMBJP6KE36CAHE3	30.80	34.20	37.80	1	49.9	12.2	1	36C
SMBJP6KE39CAHE3	33.30	37.10	41.00	1	53.9	11.3	1	39C
SMBJP6KE43CAHE3	36.80	40.90	45.20	1	59.3	10.3	1	43C
SMBJP6KE47CAHE3	40.20	44.70	49.40	1	64.8	9.4	1	47C
SMBJP6KE51CAHE3	43.60	48.50	53.60	1	70.1	8.7	1	51C
SMBJP6KE56CAHE3	47.80	53.20	58.80	1	77.0	7.9	1	56C
SMBJP6KE62CAHE3	53.00	58.90	65.10	1	85.0	7.2	1	62C
SMBJP6KE68CAHE3	58.10	64.60	71.40	1	92.0	6.6	1	68C
SMBJP6KE75CAHE3	64.10	71.30	78.80	1	103.0	5.9	1	75C
SMBJP6KE82CAHE3	70.10	77.90	86.10	1	113.0	5.4	1	82C
SMBJP6KE91CAHE3	77.80	86.50	95.50	1	125.0	4.9	1	91C
SMBJP6KE100CAHE3	85.50	95.00	105.00	1	137.0	4.5	1	100C
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SMBJP6KE130CAHE3	111.00	124.00	137.00	1	179.0	3.4	1	130C
SMBJP6KE150CAHE3	128.00	143.00	158.00	1	207.0	2.9	1	150C
SMBJP6KE160CAHE3	136.00	152.00	168.00	1	219.0	2.8	1	160C
SMBJP6KE170CAHE3	145.00	162.00	179.00	1	234.0	2.6	1	170C
SMBJP6KE180CAHE3	154.00	171.00	189.00	1	246.0	2.5	1	180C
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Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

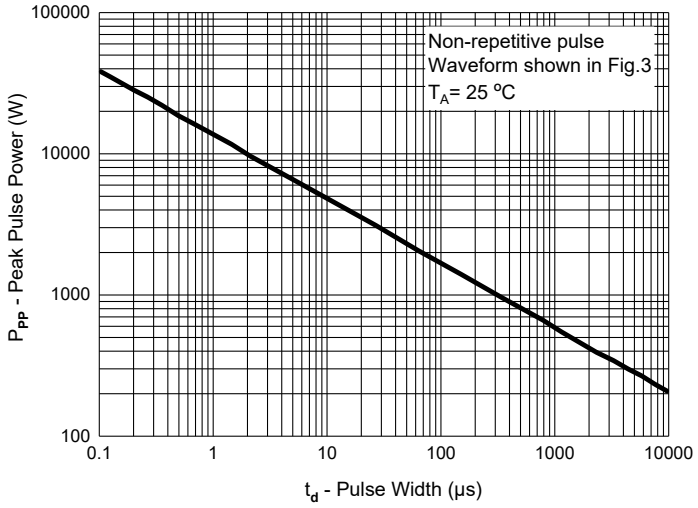


Fig. 2 - Typical Junction Capacitance

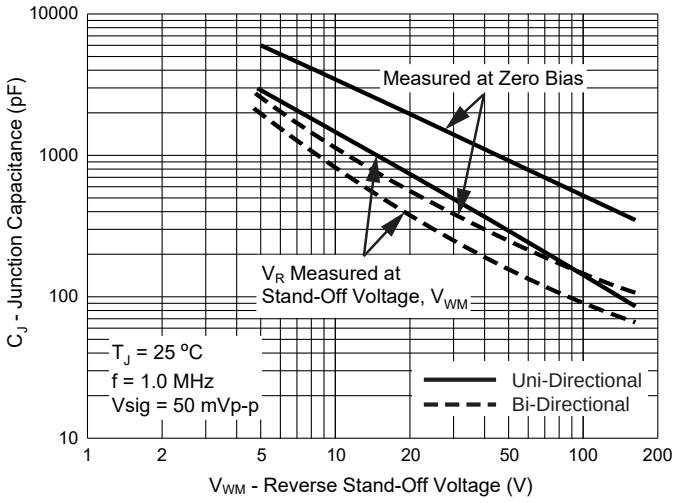


Fig. 3 - Pulse Waveform

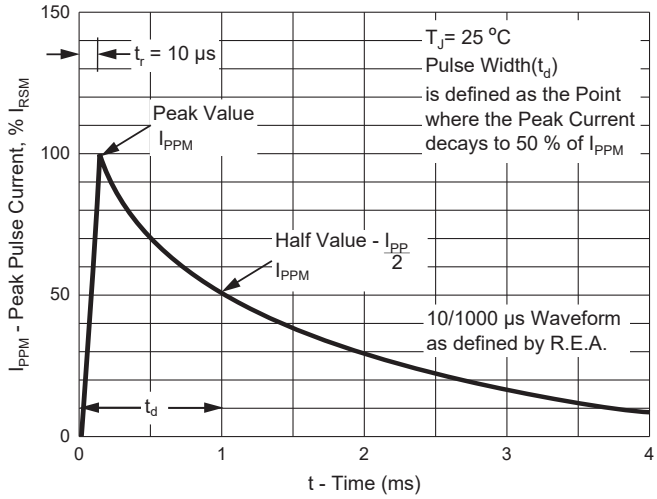
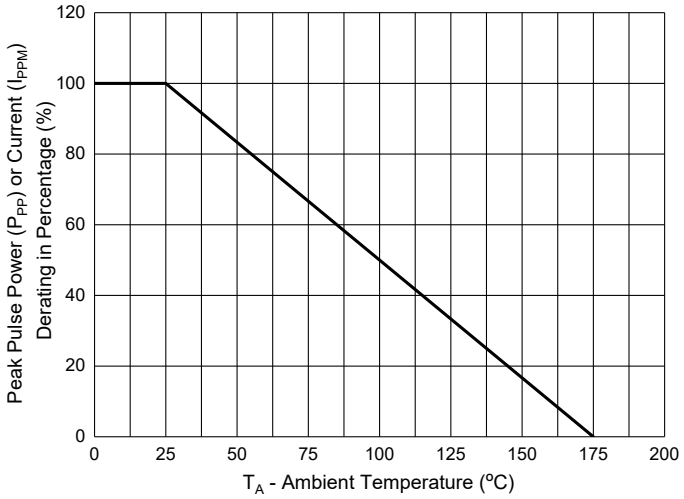


Fig. 4 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

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