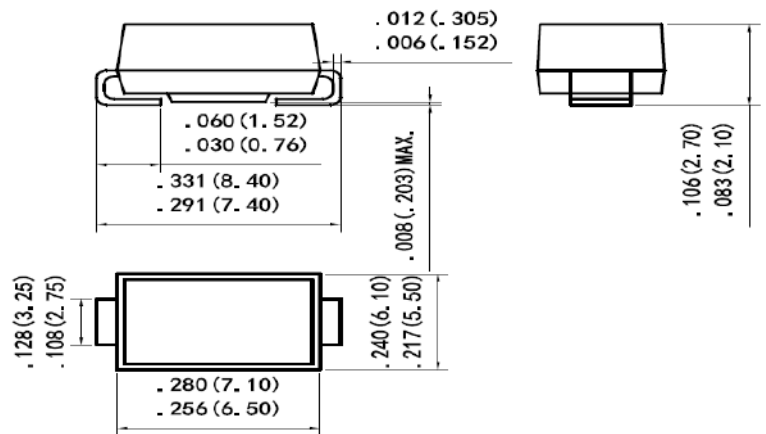


Surface Mount Transient Voltage Suppressor Rectifiers

Features:

- Glass passivated chip
- 1500 W peak pulse power capability with a 10/1000 us waveform, repetitive rate (duty cycle):0.01 %
- Excellent clamping capability
- Low reverse leakage
- Very fast response time
- Lead and body according with RoHS standard

DO214AB/(SMC)



Unit: inch (mm)

Mechanical Data:

- Case: DO214AB/(SMC) Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

Maximum Ratings & Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	Value	Unit
Peak power dissipation with a 10/1000 us waveform ⁽¹⁾	P _{PP}	1500	W
Peak pulse current with a 10/1000 us waveform ⁽¹⁾	I _{PP}	See Next Table	A
Power dissipation on infinite heatsink at TL = 75 °C	P _D	5.0	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only ⁽²⁾	I _{FSM}	200	A
Maximum instantaneous forward voltage at 100 A for unidirectional only ⁽³⁾	V _F	3.5/6.5	V
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +175	°C

Note:

- 1) Non-repetitive current pulse per Fig.5 and derated above TA= 25 °C per Fig.1;
- 2) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum;
- 3) VF<3.5V for devices of VBR<200V and VF<6.5V for devices of VBR>201V.

Part Number		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage $V_{BR} @ I_T$		Test Current	Max. Clamping Voltage @ I_{PP}	Max. Peak Pulse Current	Max. Reverse Leakage @ V_{RWM}
UNI-POLAR	BI-POLAR	UNI	BI	$V_{RWM}(V)$	Min.(V)	Max.(V)	$I_T(mA)$	$V_{C,MAX}(V)$	$I_{PP}(A)$	$I_R(\mu A)$
SMCJ36A	SMCJ36CA	GFP	BFP	36.0	40.00	44.20	1	58.1	25.82	1
SMCJ40A	SMCJ40CA	GFR	BFR	40.0	44.40	49.10	1	64.5	23.26	1
SMCJ43A	SMCJ43CA	GFT	BFT	43.0	47.80	52.80	1	69.4	21.61	1
SMCJ45A	SMCJ45CA	GFV	BFV	45.0	50.00	55.30	1	72.7	20.63	1
SMCJ48A	SMCJ48CA	GFX	BFX	48.0	53.30	58.90	1	77.4	19.38	1
SMCJ51A	SMCJ51CA	GFZ	BFZ	51.0	56.70	62.70	1	82.4	18.20	1
SMCJ54A	SMCJ54CA	GGE	BGE	54.0	60.00	66.30	1	87.1	17.22	1
SMCJ58A	SMCJ58CA	GGG	BGG	58.0	64.40	71.20	1	93.6	16.03	1
SMCJ60A	SMCJ60CA	GGK	BGK	60.0	66.70	73.70	1	96.8	15.50	1
SMCJ64A	SMCJ64CA	GGM	BGM	64.0	71.10	78.60	1	103.0	14.56	1
SMCJ70A	SMCJ70CA	GGP	BGP	70.0	77.80	86.00	1	113.0	13.27	1
SMCJ75A	SMCJ75CA	GGR	BGR	75.0	83.30	92.10	1	121.0	12.40	1
SMCJ78A	SMCJ78CA	GGT	BGT	78.0	86.70	95.80	1	126.0	11.90	1
SMCJ85A	SMCJ85CA	GGV	BGV	85.0	94.4	104.0	1	137.0	10.95	1
SMCJ90A	SMCJ90CA	GGX	BGX	90.0	100.0	111.0	1	146.0	10.27	1
SMCJ100A	SMCJ100CA	GGZ	BGZ	100.0	111.0	123.0	1	162.0	9.26	1
SMCJ110A	SMCJ110CA	GHE	BHE	110.0	122.0	135.0	1	177.0	8.47	1
SMCJ120A	SMCJ120CA	GHG	BHG	120.0	133.0	147.0	1	193.0	7.77	1
SMCJ130A	SMCJ130CA	GHK	BHK	130.0	144.0	159.0	1	209.0	7.18	1
SMCJ150A	SMCJ150CA	GHM	BHM	150.0	167.0	185.0	1	243.0	6.17	1
SMCJ160A	SMCJ160CA	GHP	BHP	160.0	178.0	197.0	1	259.0	5.79	1
SMCJ170A	SMCJ170CA	GHR	BHR	170.0	189.0	209.0	1	275.0	5.45	1

Ratings and Characteristics Curves (TA=25°C unless otherwise noted)

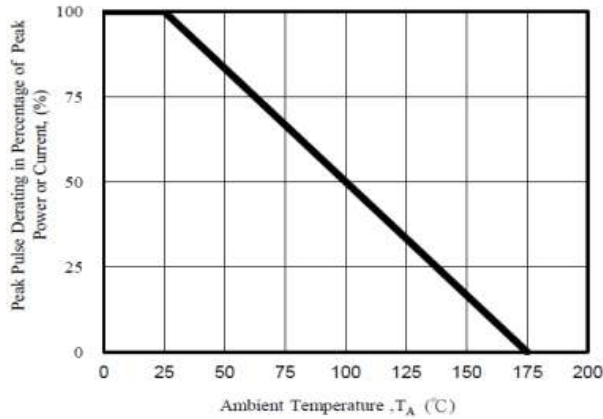


Fig. 1 - Pulse Derating Curve

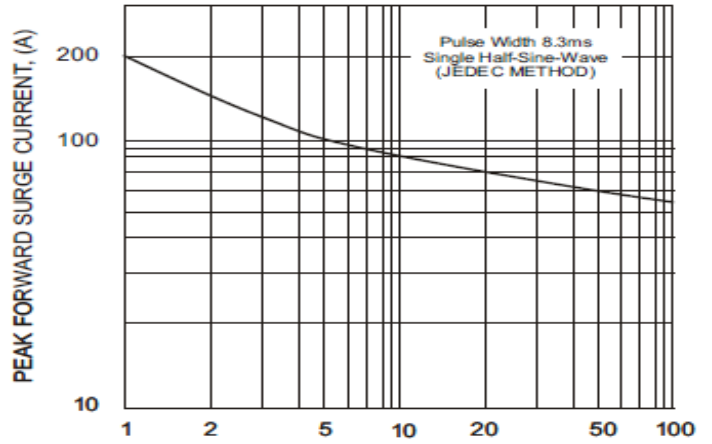


Fig. 2 - Maximum Non-Repetitive Surge Current

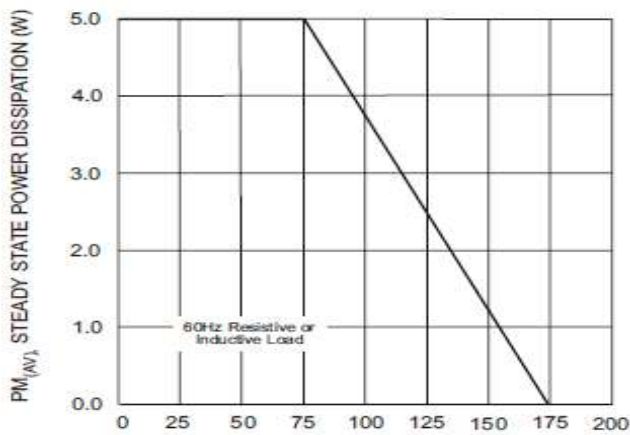


Fig. 3 - Steady State Power Derating Curve

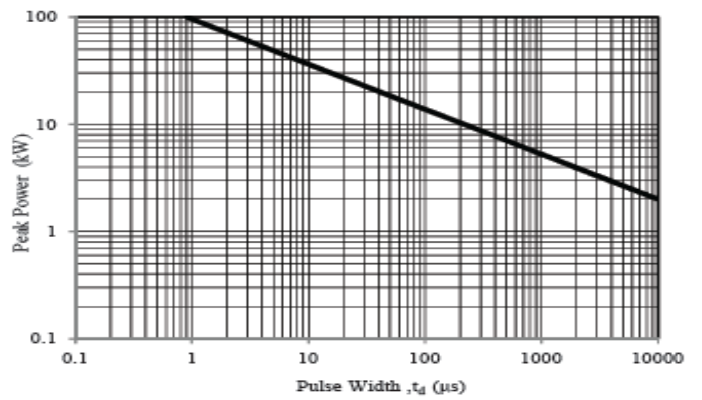


Fig. 4 - Peak Pulse Power Rating Curve

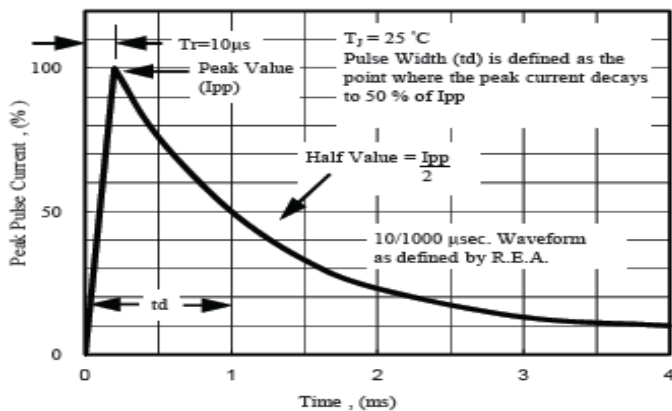


Fig. 5 - Pulse Waveform

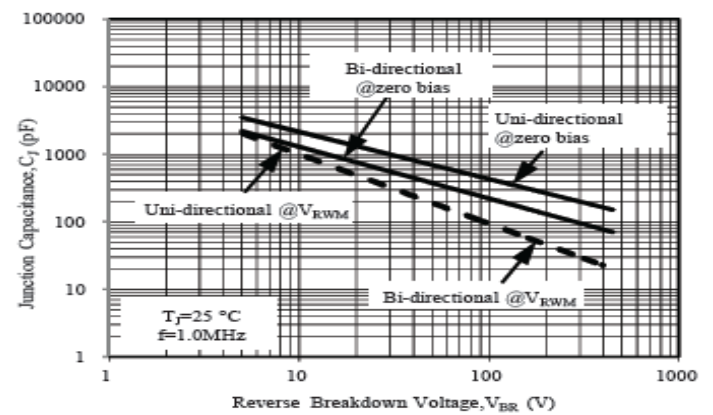


Fig. 6 - Typical Junction Capacitance