

SMLVT3V3

TRANSIENT VOLTAGE SUPPRESSOR DIODE

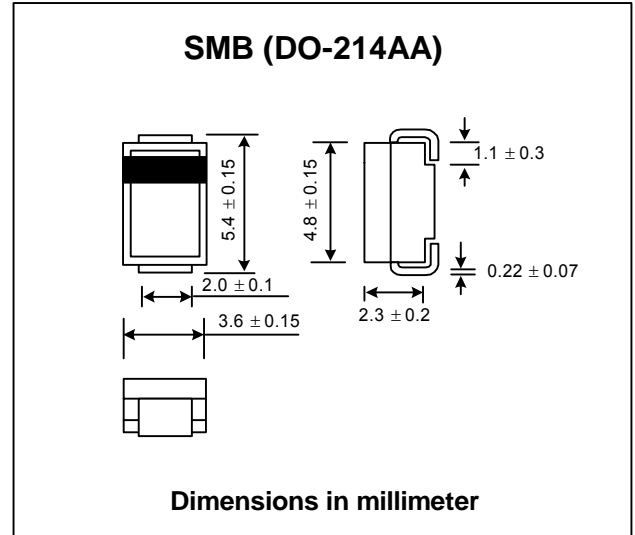
Stand-off Voltage : 3.3 V
Peak Pulse Power : 600 W

FEATURES :

- * Unidirectional transient voltage suppressor
- * 600W peak pulse power capability with a 10/1000 μ s waveform
- * Low clamping factor
- * Fast response Time
- * Pb / RoHS Free

MECHANICAL DATA

- * Case : SMB Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.108 gram



MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Units
Peak Pulse Power Dissipation ⁽¹⁾ , T _j initial = T _a	P _{PP}	600	W
Power Dissipation on infinite heatsink, T _a = 50 °C	P _P	6	W
Non-repetitive Surge Peak Forward Current, t _p =10ms, T _j initial = T _a	I _{FSM}	50	A
Thermal Resistances, Junction to Ambient	R _{θJA}	100	°C/W
Thermal Resistances, Junction to Leads	R _{θJL}	20	°C/W
Maximum Junction Temperature	T _J	175	°C
Maximum Lead Temperature soldering during 10s	T _L	260	°C
Storage Temperature Range	T _{STG}	- 65 to + 175	°C

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type No.	Breakdown Voltage ⁽²⁾ @ I _T		Reverse Stand-off Voltage V _{RWM}	Maximum Reverse Leakage @ V _{RWM} I _{RM}	Max.Clamping Voltage @ I _{PPM} (10/1000 μ s) V _C	Peak Pulse Surge Current (10/1000 μ s) I _{PPM}	Max.Clamping Voltage @ I _{PPM} (8/20 μ s) V _C	Peak Pulse Surge Current (8/20 μ s) I _{PPM}	Voltage Temperature Coefficient α_T	Typ. Junction Capacitance V _R = 0V, f = 1MHz @ 0 Volt
	V _{BR} (V)	I _T								
	Min.	(mA)								
SMLVT3V3	4.1	1.0	3.3	200	7.3	50	10.3	200	-5.3	5200

Notes:

- (1) For a surge greater than the maximum values, the diode will fail in short-circuit.
- (2) Pulse test : t_p < 50ms.
- (3) "SMLV" will be omitted in marking on the diode.

RATING AND CHARACTERISTIC CURVES (SMLVT3V3)

FIG.1 - PULSE DERATING CURVE

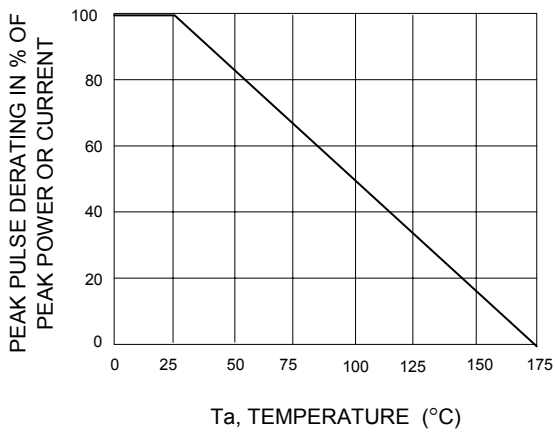


FIG.2 - PEAK PULSE POWER RATING CURVE

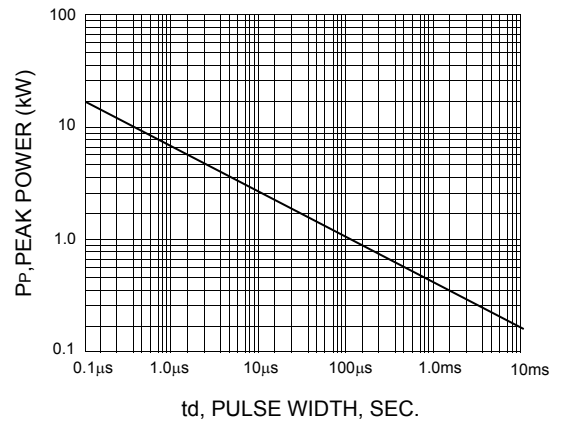


FIG.3 - PULSE WAVEFORM

