SMLVT3V3

TRANSIENT VOLTAGE SUPPRESSOR DIODE

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

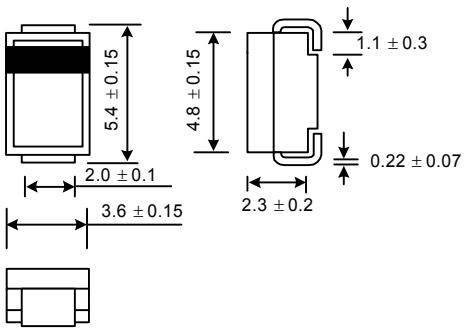
FEATURES :

* Uidirectional transient voltage suppressor
* 600W peak pulse power capability with a 10/1000μs 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

SMB (DO-214AA)



Dimensions in millimeter

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Units
Peak Pulse Power Dissipation (1), Tj initial = Ta	P_{PP}	600	W
Power Dissipation on infinite heatsink, Ta = 50 °C	P_P	6	W
Non-repetitive Surge Peak Forward Current, tp=10ms, Tj initial = Ta	I_{FSM}	50	A
Thermal Resistances, Junction to Ambient	$R_{\Theta JA}$	100	°C/W
Thermal Resistances, Junction to Leads	$R_{\Theta JL}$	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	Maximum Reverse Leakage @ V_{RWM}	Max.Clamping Voltage @ I_{PPM} (10/1000μs)	Peak Pulse Surge Current (10/1000μs)	Max.Clamping Voltage @ I_{PPM} (8/20μs)	Peak Pulse Surge Current (8/20μs)	Voltage Temperature Coefficient	Typ. Junction Capacitance V_R = 0V, f = 1MHz
	V_{BR} (V)	I_T	V_{RWM}	I_{RM}	V_C	I_{PPM}	V_C	I_{PPM}	αT	@ 0 Volt
	Min.	(mA)	(V)	(μA)	(V)	(A)	(V)	(A)	(10^{-4}/°C)	pF
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 : tp < 50ms.
(3) "SMLV" will be omitted in marking on the diode.

RATING AND CHARACTERISTIC CURVES (SMLVT3V3)

FIG.1 - PULSE DERATING CURVE

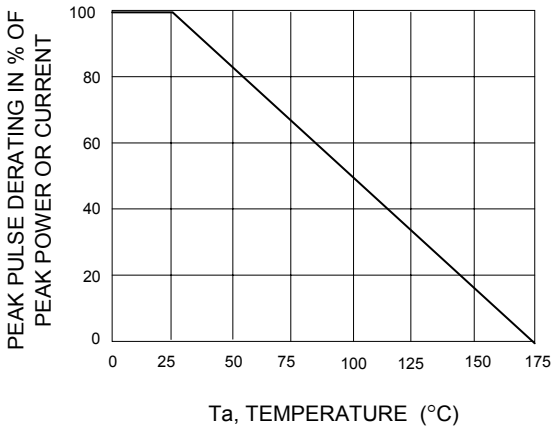


FIG.2 - PEAK PULSE POWER RATING CURVE

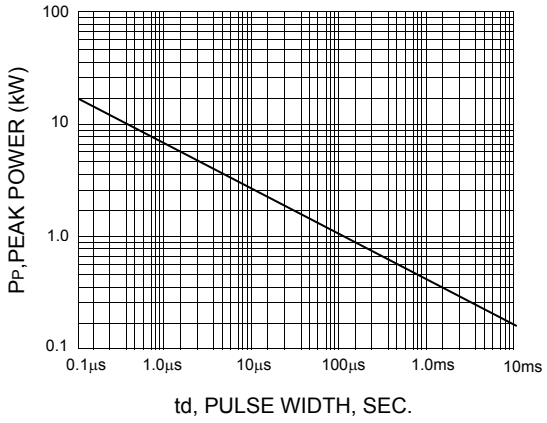


FIG.3 - PULSE WAVEFORM