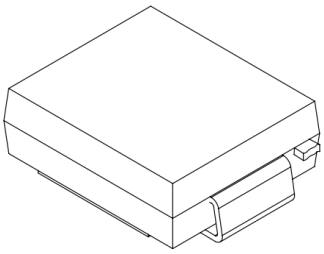
P2600G3K

Description

SMC TSS is designed to protect 3kA 8/20uS surge current for those application which exposed in high voltage transient environmental. such as AC or DC power supplies. These components' switching voltage VS are much lower than alternative Gas Discharge Tubes (GDT), and on-state voltage VT are much lower than alternative GDTs, Metal Oxide Varistors (MOV) and TVS Diodes.



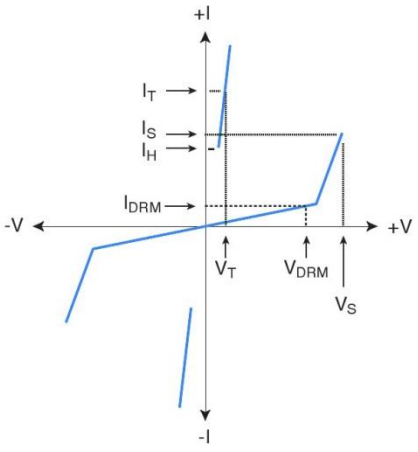
Features

- Excellent capability of absorbing transient surge.
- Quick response to surge voltage (ns Level).
- Component properties do not degrade after multiple surge events within its limits
- Fails short circuit when surged in excess of ratings
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact).
- Non degenerative.

Device Symbol

V-I Characteristics

Parameter	Definition
V_{DRM}	Peak Off-state Voltage – maximum voltage that can be applied while maintaining off state
V_S	Switching Voltage – maximum voltage prior to switching to on state
V_T	On-state Voltage – maximum voltage measured at rated on-state current
I_{DRM}	Leakage Current – maximum peak off-state current measured at VDRM
I_S	Switching Current – maximum current required to switch to on state
I_T	On-state Current – maximum rated continuous on-state current
I_H	Holding Current – minimum current required to maintain on state
C_O	Off-state Capacitance – typical capacitance measured in off state
I_{PP}	Peak Pulse Current – maximum rated peak impulse current



Thermal Consideration

Parameter	Symbol	Value	Unit
Operating Temperature	T_J	-55 to +125	°C
Storage Temperature	T_{STG}	-55 to +125	°C
Thermal Resistance: Junction to Ambient	$R_{\theta JA}$	100	°C/W

Summary Electrical Characteristics, T a = 25 ° C (Unless Otherwise Noted)

Parameter Description	V_{DRM} @ I_{DRM}		V_S @1000V/μS	I_S	V_T@ I_T		I_H @10A 10/1000μS	C_O ①
Unit	V	μA	V	mA	V	A	mA	pF
Type	min		max	max	max	max	min	Typ.
P2600G3K	220	1	300	800	4	2.2	50	450

① Off-state capacitance is measured in VDC=2V, VRMS=1V, f=1MHz

Surge Ratings

Current waveform	IPP
8/20μs	3000A

Rating & Characteristic Curves

Figure 1- Reflow Soldering

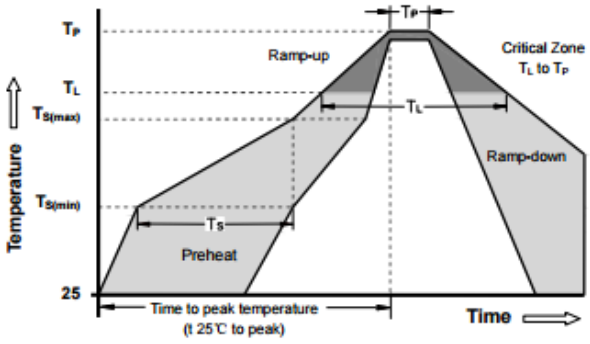


Figure 2- 8/20μs waveform

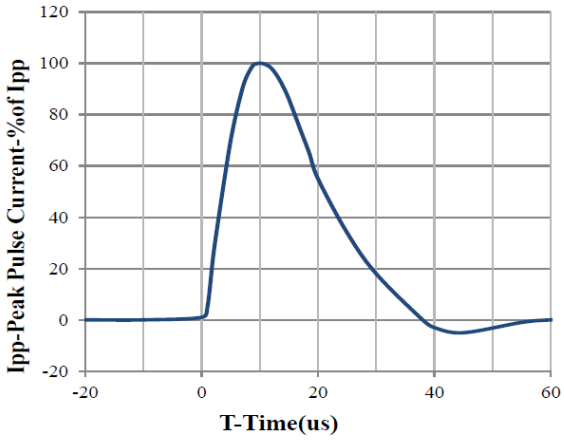
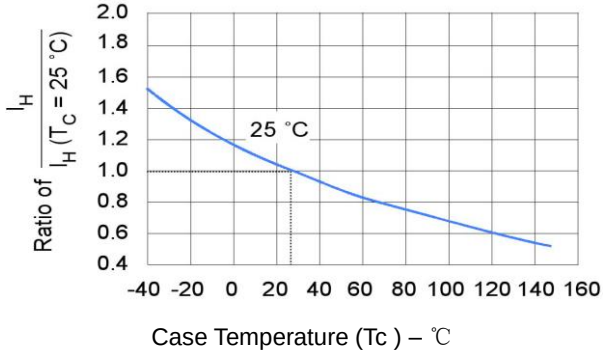
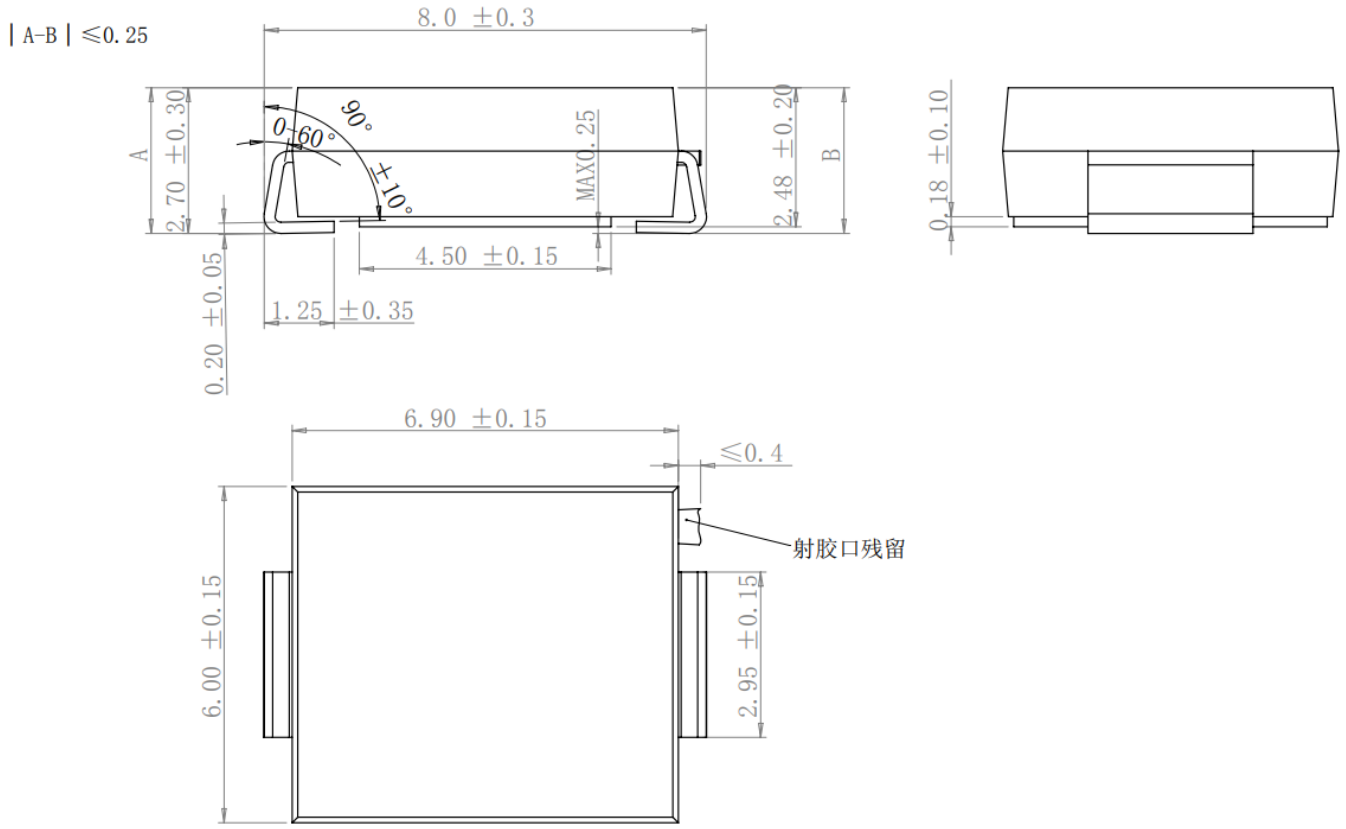


Figure 3-Normalized DC Holding Current versus Case Temperature



PACKAGE OUTLINE DIMENSIONS in millimeters



Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.