

NR5.0SMDJ90CA

Description

The NR5.0SMDJ90CA C is designed for The system of electric two-wheeler

Features

- Glass passivated chip
- 5000 W peak pulse power capability with a 10/1000 μ s waveform, repetitive rate (duty cycle):0.01 %
- Low leakage
- Bidirectional unit
- Excellent clamping capability
- Very fast response time
- Mounting position: Any
- IEC61000-4-2 (ESD) ± 30 kV (air), ± 30 kV (contact).
- 1.2/50 μ s-8/20 μ s 2ohm 1KV/500A



Functional Diagram



Maximum Ratings (TA=25 °C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000 μ s waveform ¹	P _{PK}	5000	Watts
Steady State Power Dissipation @ TL = 75 °C	P _D	6.5	Watts
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Note:

1. Non-repetitive current pulse per Fig.4 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

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number (Bi)	Marking	Reverse Stand off Voltage V _R (Volts)	Breakdown Voltage V _{BR} (Volts)@I _T		Test Current I _T (mA)	Maximum Reverse Leakage I _R @ V _R (μ A)	Maximum Peak Pulse Current I _{pp} (A)	Maximum Clamping Voltage V _C @ I _{pp} (V)	I _{PP} (A) 8/20 μ S	V _C (A) 8/20 μ S
	Bi		Min .V	Max .V						
NR5.0SMDJ90CA	N5BGX	90	100	111	1	2	34.3	120	500	120

Rating & Characteristic Curves

Figure 1- Pulse Derating Curve

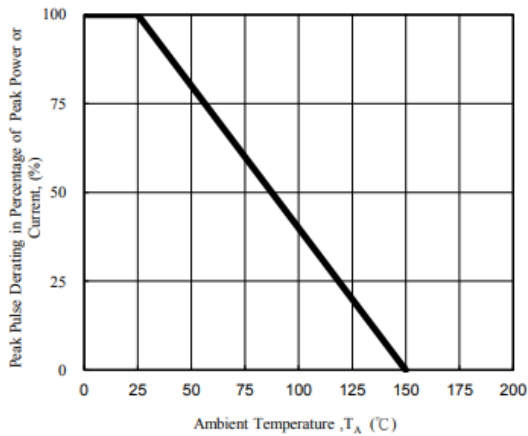


Figure 2- V-I Curve

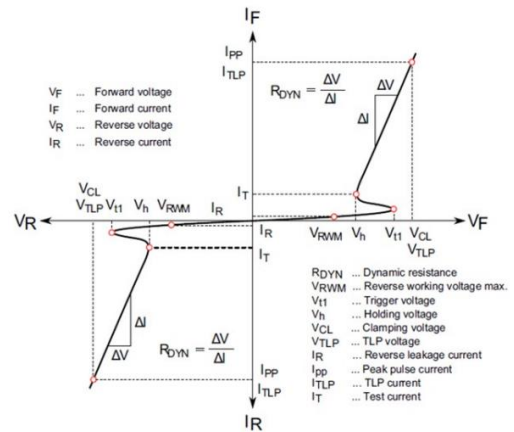


Figure 3- Steady State Power Derating Curve

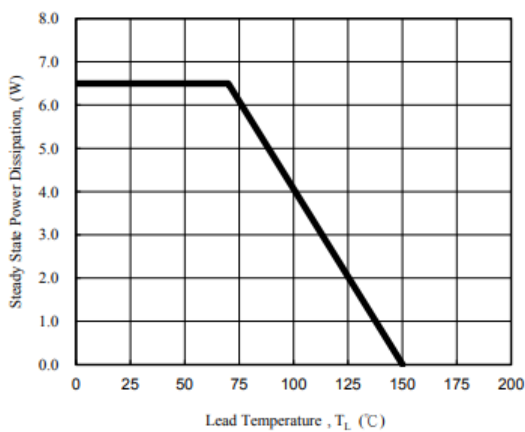
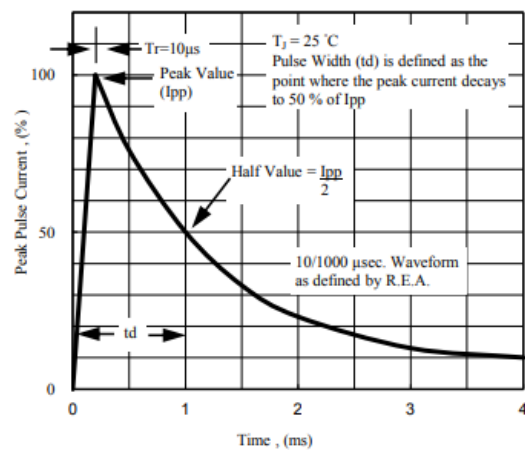
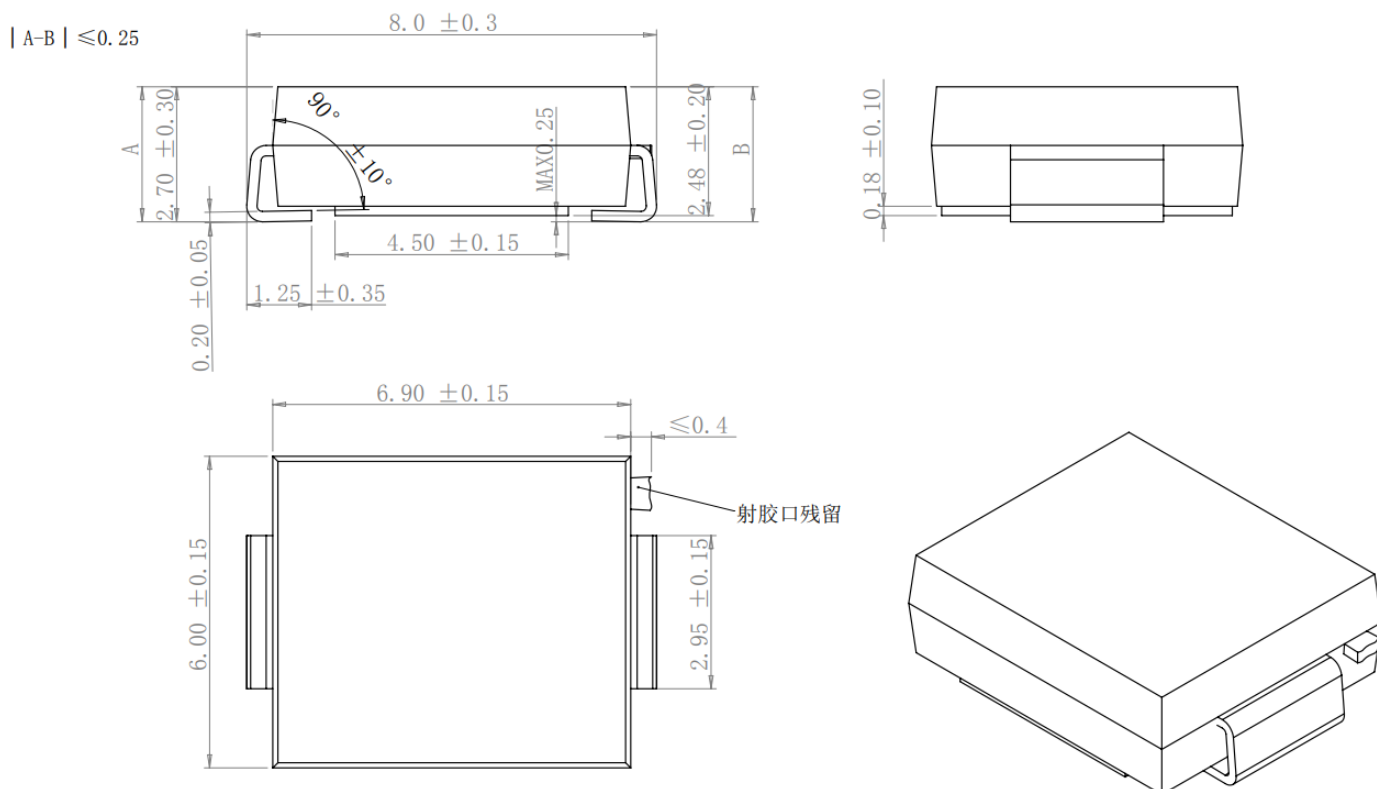


Figure 4- Pulse Waveform



PACKAGE OUTLINE DIMENSIONS (millimeters)



DO-214AB(smc)

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.