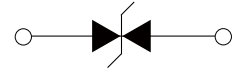


FEATURES

- | ISO10605(C=330pF, R=330Ω):±30kV Air , ±30kV(Contact)
- | HBM ≥ ±8kV & CDM ≥ ±2kV
- | Rated for load dump protection (ISO16750-2)in automotive applications
- | Meets ISO7637-2 Requirements
- | Meets MSL Level 1 per J-STD-020
- | Meet AEC-Q101 Requirements
- | Lead free in compliance with EU RoHS 2.0
- | Green molding compound as per IEC61249 standard



DO-218mini



Schematic Symbol

TYPICAL APPLICATIONS

- | Case : Molded plastic,BKM Tentative
- | Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- | Only suitable for P-type chip

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

ELECTRICAL CHARACTERISTICS

Part Number	V_R	I_T	$I_R@V_R$		$V_{BR}@I_T$		$V_C@I_{PP}$	I_{PP}
	V	mA	μA@25°C	μA@175°C	Min.(V)	Max.(V)	V	A
SMD8T36CA	36.0	5.0	5.0	150	40.0	44.2	58.1	138

Note:

①.Surge waveform:10/1000μs

V_R : Stand-off voltage -- Maximum voltage that can be applied

V_{BR} : Breakdown voltage

V_C : Clamping voltage -- Peak voltage measured across the suppressor at a specified IPP

I_R : Reverse leakage current

I_T : Test current

MAXIMUM RATINGS ($T_c=25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 10/1000 μs waveform	P_{PP}	8000	Watts
Peak pulse power dissipation at 10/10000 μs waveform		6000	
Power dissipation on infinite heat sink at $T_c=25^\circ\text{C}$	P_D	8.0	
Peak pulse current with 10/1000 μs waveform	$I_{PPM}^{(1)}$	138	Amps
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +175	$^\circ\text{C}$
Typical thermal resistance, junction to case	$R_{\theta JC}$	0.9	$^\circ\text{C}/\text{W}$
Typical thermal resistance, junction to ambient	$R_{\theta JA}$	12	

Note

(1) Non-repetitive current pulse derated above $T_A=25^\circ\text{C}$

RATINGS AND CHARACTERISTICS CURVES ($T_A=25^\circ\text{C}$)

Figure 1: Power derating curve

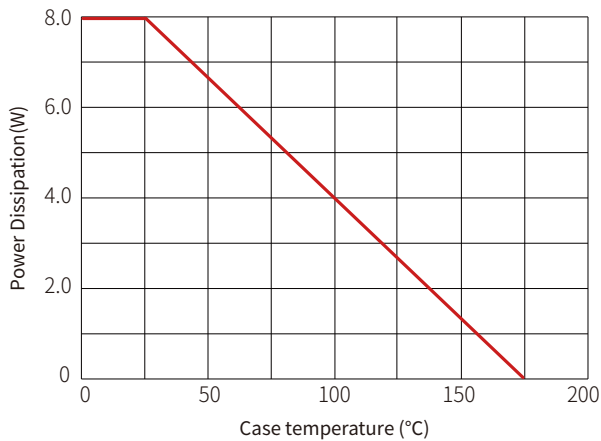


Figure 2: Pulse waveform

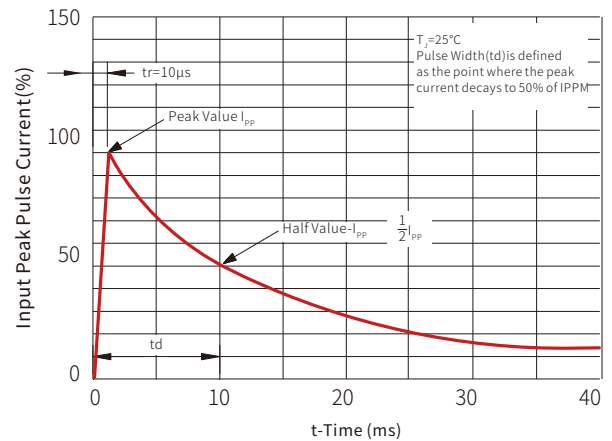


Figure 3: Load dump power characteristics (10ms exponential waveform)

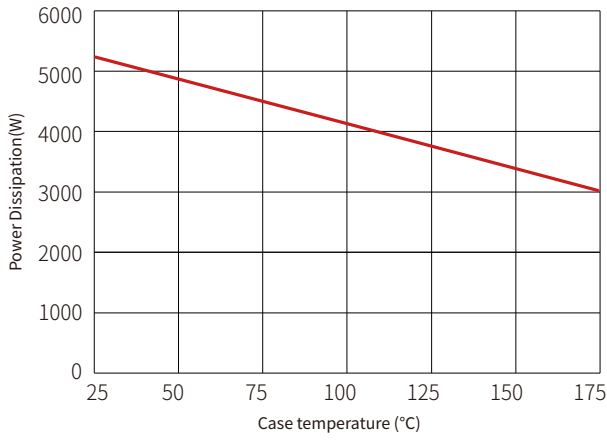


Figure 4: Reverse power capability

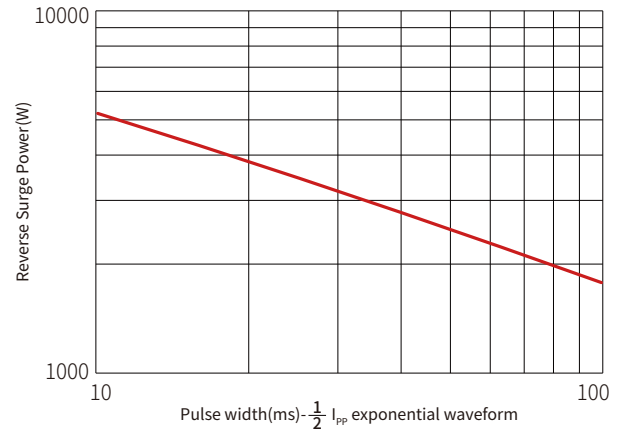


Figure 5: Typical transient thermal impedance

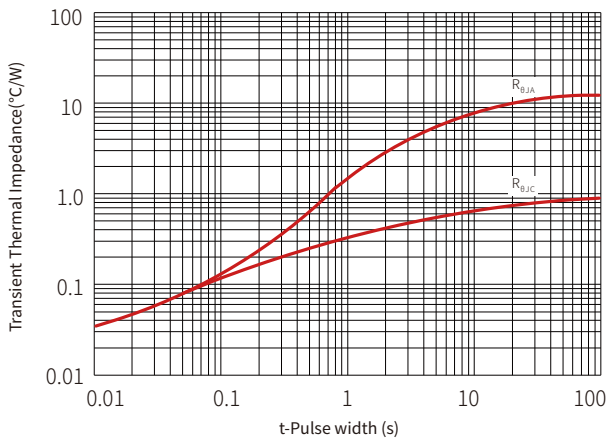
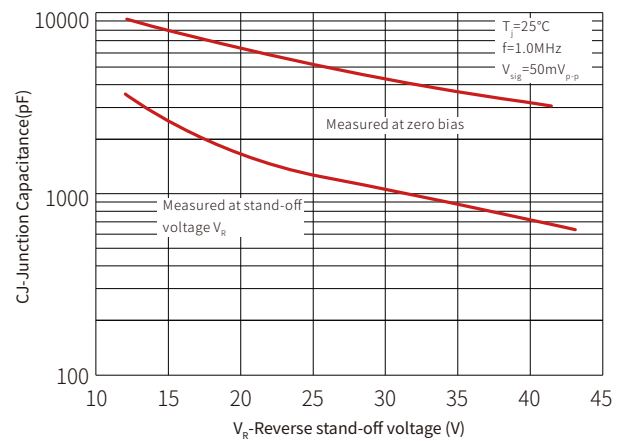
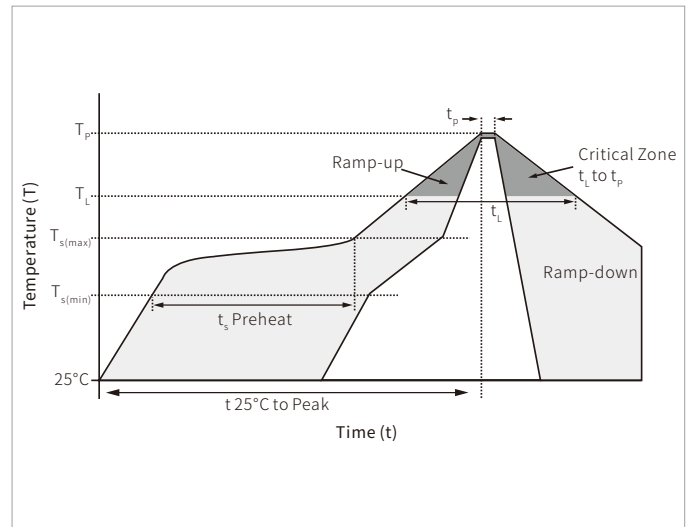


Figure 6: Typical junction capacitance

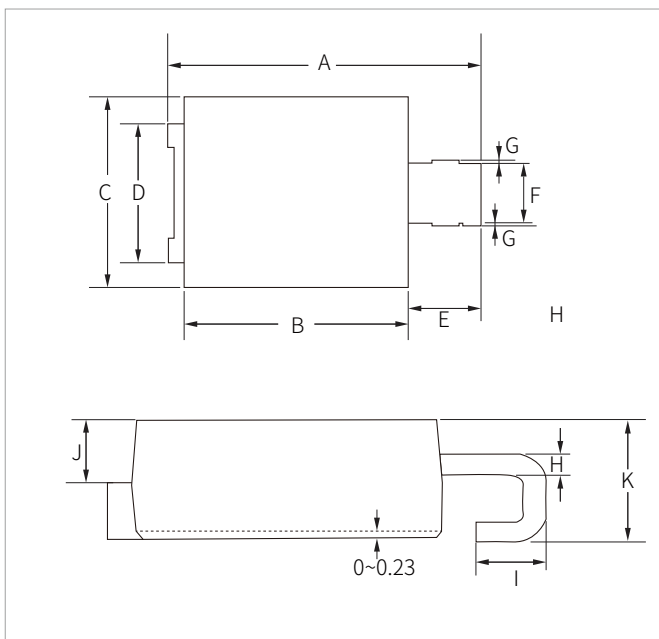


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_l)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C



DO-218MINI PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	11.50	12.50	0.453	0.492
B	8.20	8.80	0.323	0.346
C	7.70	8.70	0.303	0.342
D	6.00		0.236	
E	2.80		0.110	
F	2.60		0.102	
G	-	0.20	-	0.008
H	0.66		0.026	
I	1.90		0.075	
J	1.80	2.30	0.071	0.090
K	3.20	4.00	0.126	0.157

ORDERING INFORMATION

Part Number	Component Package	Marking	QTY/Reel	Reel Size
SMD8T36CA	DO-218mini	SMD8T36CA	1000PCS	13"

Headquarters

No.3387 Shendu Road
Pujiang I&E Park
Minhang Shanghai China
201000

Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

By QR Code

Website



Wechat

To find your local partner within Semiware' s global website: www.semiware.com

© 2022 Semiware Semiconductor Inc.

The content of this document has been carefully checked and understood. However, neither Semiware nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifications are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Semiware does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Chinese law and resulting disputes shall be settled by the courts at the place of business of Semiware. Latest publications and a complete disclaimer can be downloaded from the Semiware website. All trademarks recognized.