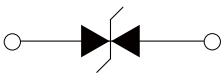
FEATURES

- 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°C)

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

Note
(1) Non-repetitive current pulse derated above T_A=25°C

RATINGS AND CHARACTERISTICS CURVES (T_A=25°C)

Figure 1: Power derating curve

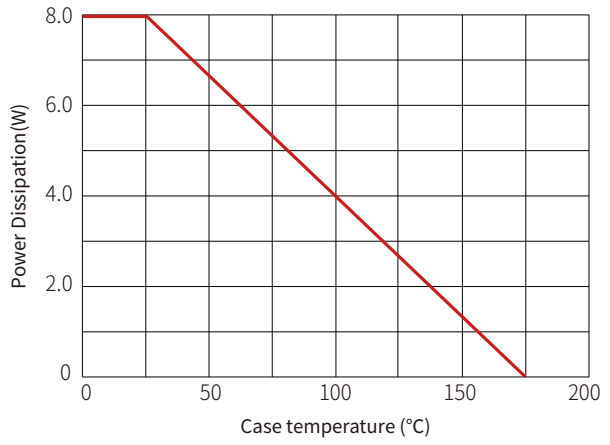


Figure 2: Pulse waveform

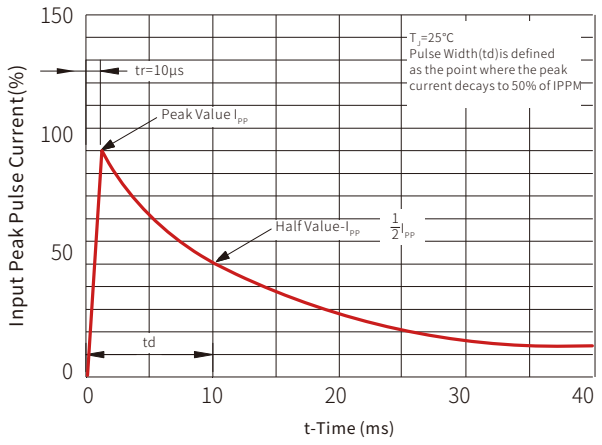


Figure 3: Load dump power characteristics (10ms exponential waveform)

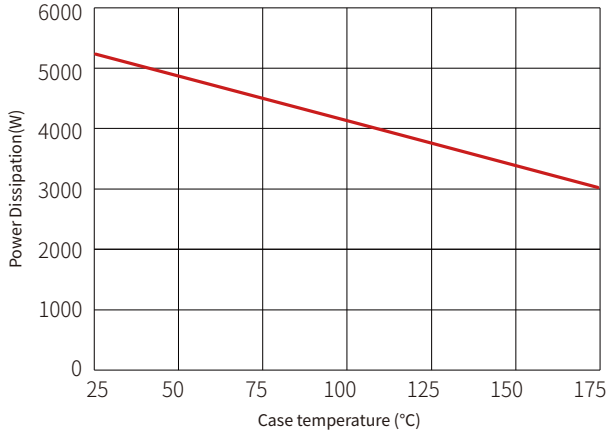


Figure 4: Reverse power capability

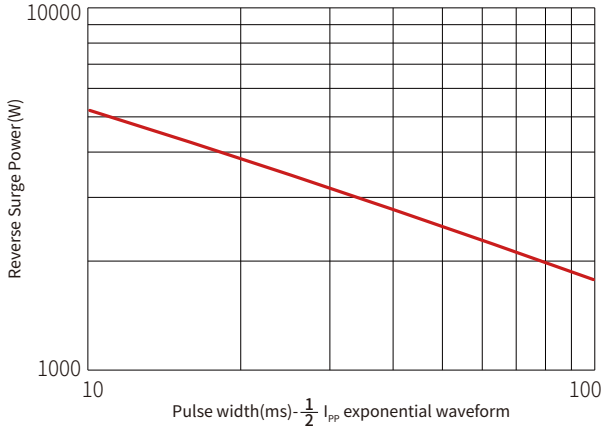


Figure 5: Typical transient thermal impedance

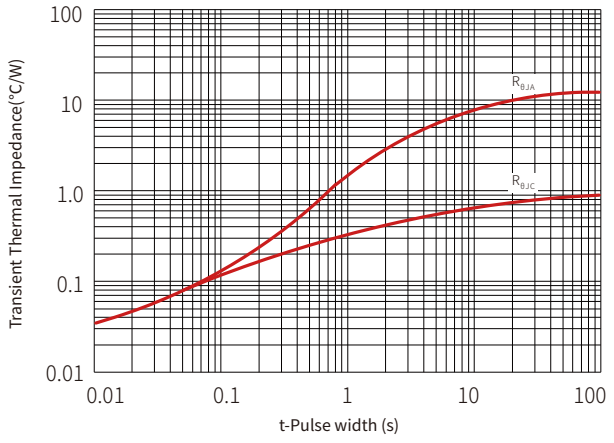
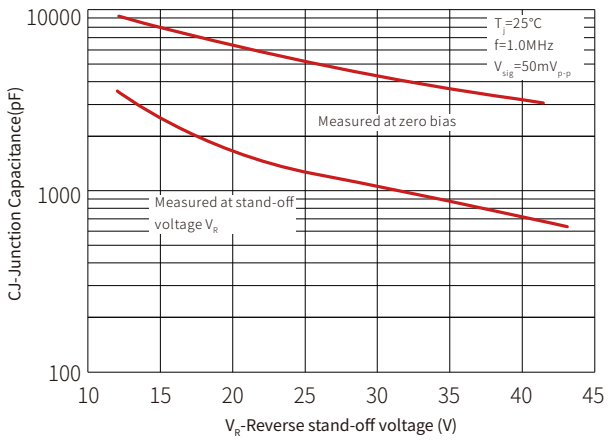
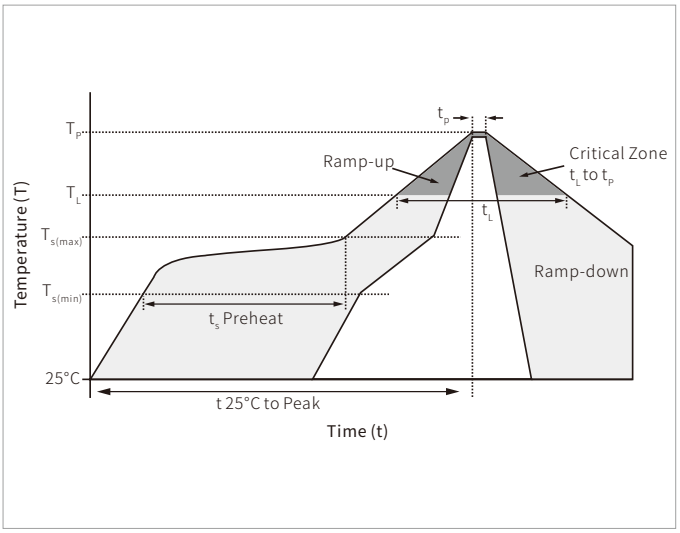


Figure 6: Typical junction capacitance

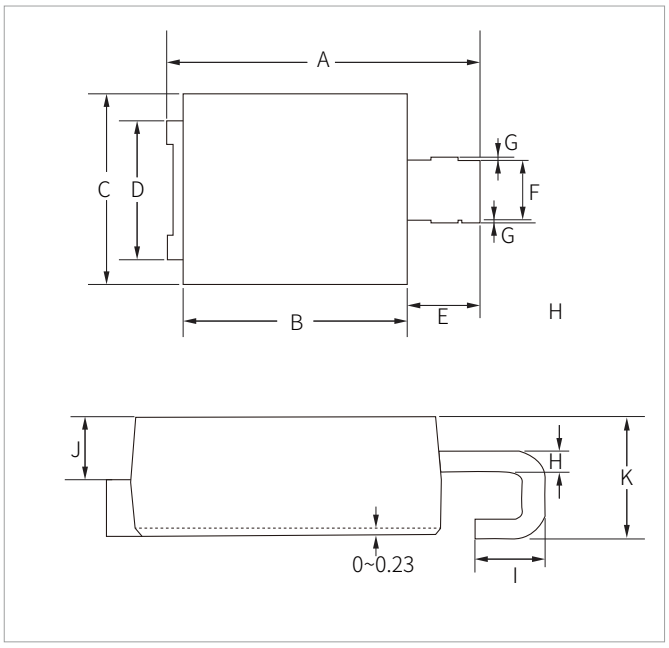


SOLDERING PARAMETERS

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

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