

SM8S14A-AU ~ SM8S48A-AU Series

6.6kW SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

Stand-Off Voltage

14~48V

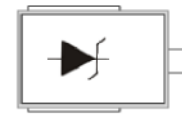
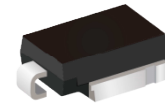
DO-218AB

Features

- ISO10605(C=330 pF,R=330Ω): ± 30kV Air, ± 30kV Contact
- HBM $\geq \pm 8$ kV & CDM $\geq \pm 2$ kV
- Rated for load dump protection in automotive applications
- Meets ISO 7637-2 / ISO16750-2 Surge specification (varies by test condition)
- Meets MSL Level 1 per J-STD-020
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : Molded plastic, DO-218AB
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.099 ounces, 2.821 grams



Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
10/1,000us Peak Pulse Power Dissipation on T _A = 25 °C (Note 1)	P _{PPM1}	6600	W
10/10,000us Peak Pulse Power Dissipation on T _A = 25 °C	P _{PPM2}	5200	W
Peak Surge Current (60Hz half wave)	I _{FSM}	700	A
Typical Thermal Resistance Junction to Case	R _{θJC}	0.9	°C/W
Power Dissipation on infinite heatsink T _C = 25 °C	P _D	8	W
ISO10605(C=330 pF,R=330Ω) Contact	V _{ESD}	30	kV
ISO10605(C=330 pF,R=330Ω) Air	V _{ESD}	30	kV
Operating and Storage Temperature Range	T _J ,T _{STG}	-55~175	°C



SM8S14A-AU ~ SM8S48A-AU Series

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

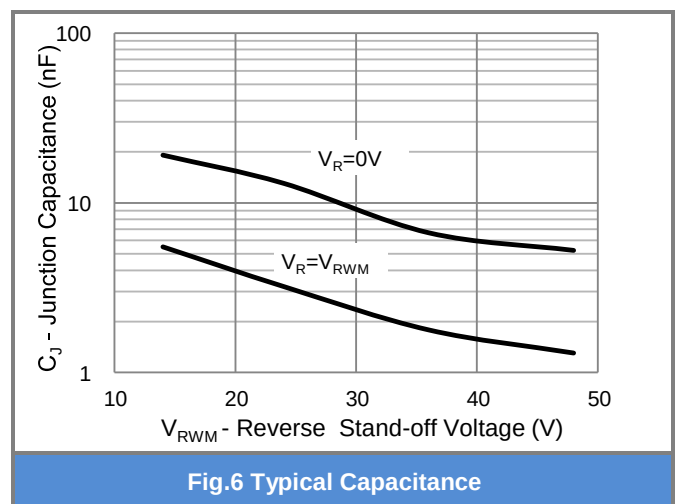
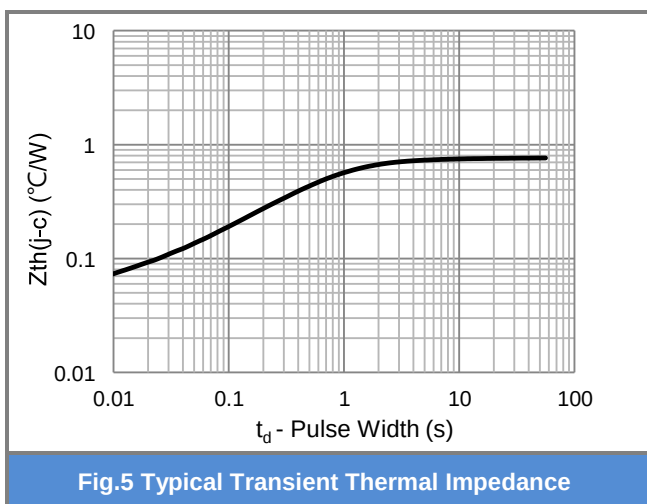
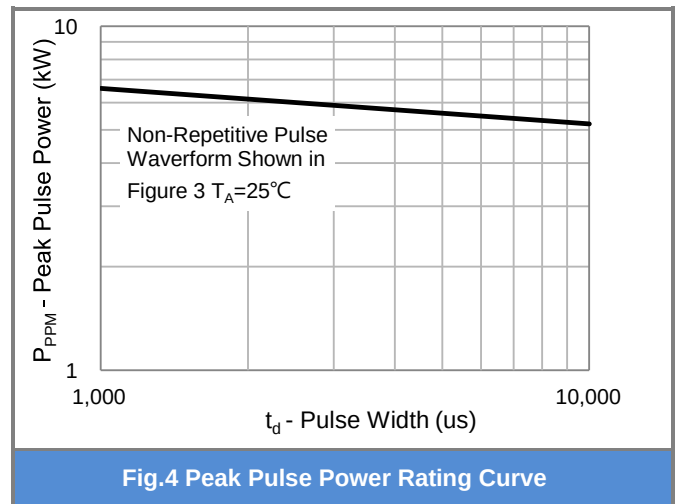
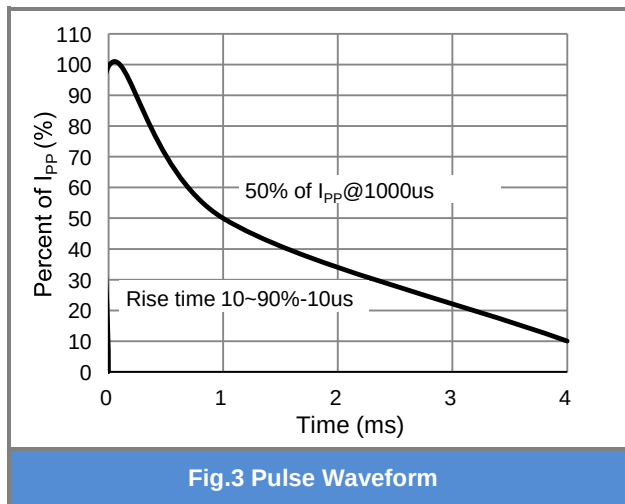
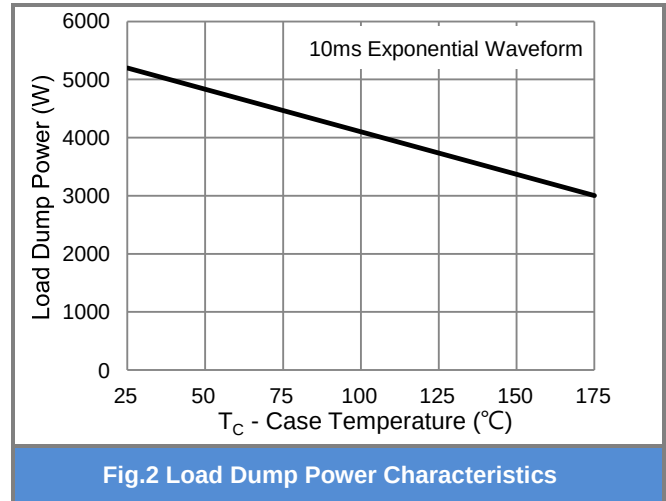
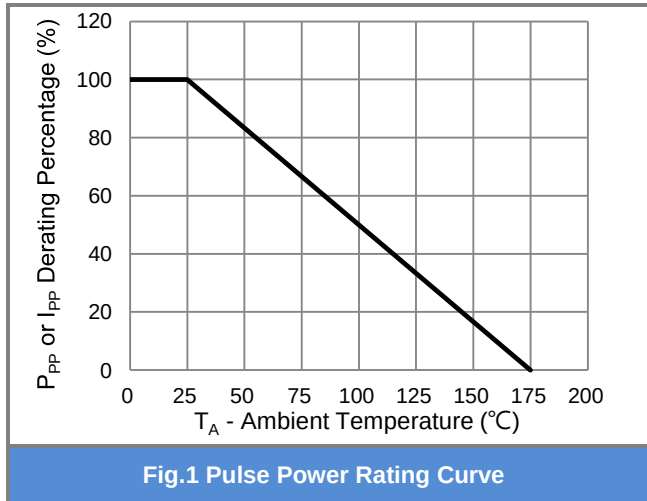
Part Number	V _{RWM}	V _{BR}			Reverse Leakage		V _C @I _{PP} (Note 1)		Marking Code
		Min.	Max.	I _T	I _R @V _{RWM}	I _R @V _{RWM} T _J =175 °C			
	V	V	V	mA	µA	µA	V	A	
6600W Transient Voltage Suppressor									
SM8S14A-AU	14	15.6	17.2	5	1	150	23.2	284	6EJG
SM8S15A-AU	15	16.7	18.5	5	1	150	24.4	270	6EJH
SM8S16A-AU	16	17.8	19.7	5	1	150	26	254	6EJK
SM8S17A-AU	17	18.9	20.9	5	1	150	27.6	239	6EJL
SM8S18A-AU	18	20	22.1	5	0.5	150	29.2	226	6EJM
SM8S20A-AU	20	22.2	24.5	5	0.5	150	32.4	204	6EJN
SM8S22A-AU	22	24.4	26.9	5	0.5	150	35.5	186	6EJP
SM8S24A-AU	24	26.7	29.5	5	0.5	150	38.9	170	6EJQ
SM8S26A-AU	26	28.9	31.9	5	0.5	150	42.1	157	6EJR
SM8S28A-AU	28	31.1	34.4	5	0.5	150	45.4	145	6EJS
SM8S30A-AU	30	33.3	36.8	5	0.5	150	48.4	136	6EJY
SM8S33A-AU	33	36.7	40.6	5	0.5	150	53.3	124	6EJT
SM8S36A-AU	36	40	44.2	5	0.5	150	58.1	114	6EJU
SM8S40A-AU	40	44.4	49.1	5	0.5	150	64.5	102	6EJV
SM8S43A-AU	43	47.8	52.8	5	0.5	150	69.4	95	6EJW
SM8S48A-AU	48	53.3	58.7	5	0.5	150	80.6	82	6EJX

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A = 25^\circ\text{C}$ per Fig.1
2. TVS is a transient protection device, it is strongly recommended not to use as a Zener.

SM8S14A-AU ~ SM8S48A-AU Series

TYPICAL CHARACTERISTIC CURVES



SM8S14A-AU ~ SM8S48A-AU Series

TYPICAL CHARACTERISTIC CURVES

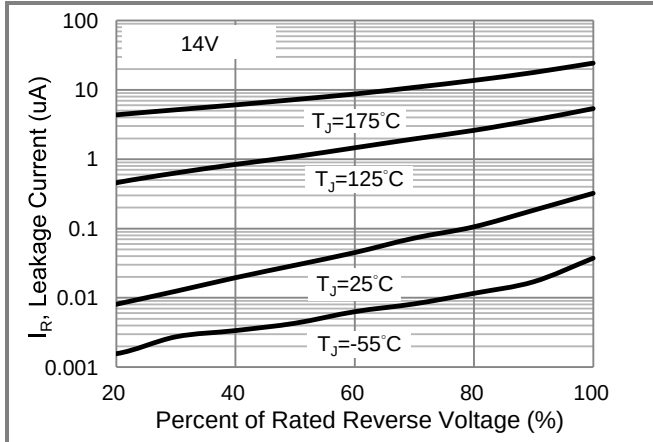


Fig.7 Typical Reverse Characteristics

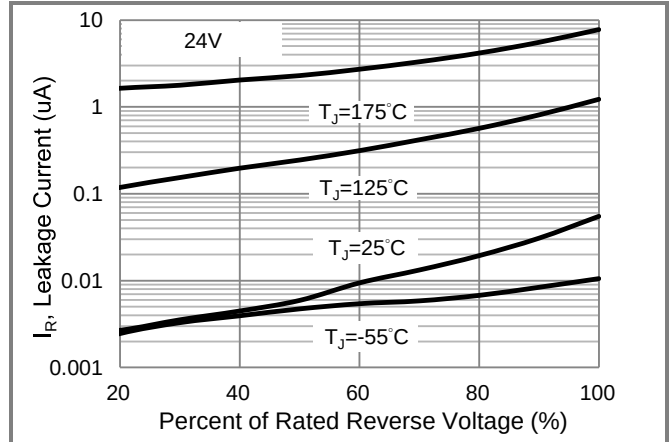


Fig.8 Typical Reverse Characteristics

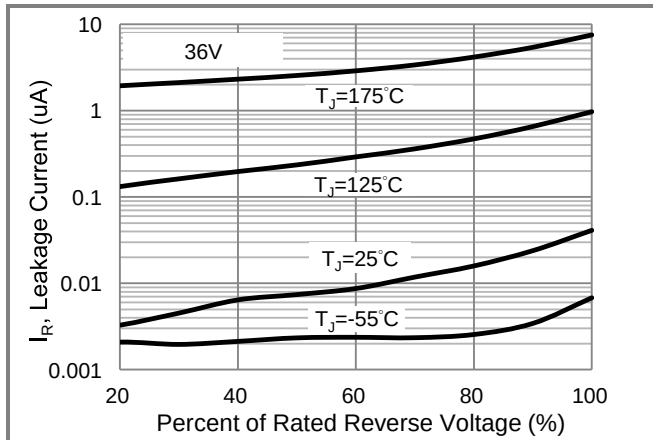


Fig.9 Typical Reverse Characteristics

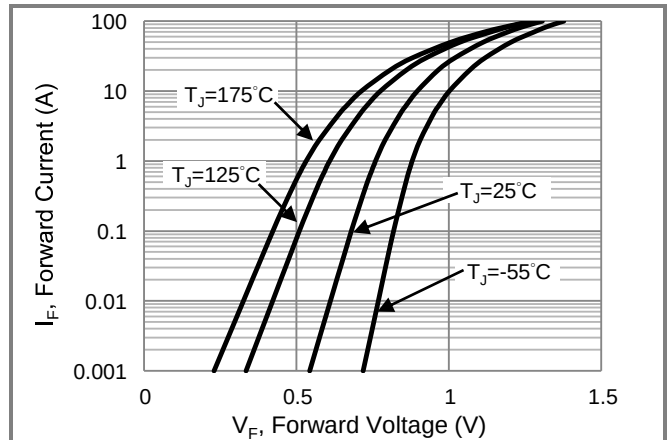


Fig.10 Typical Forward Characteristics

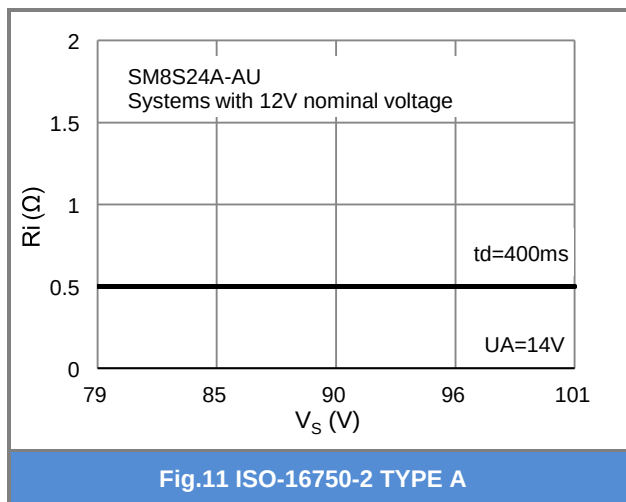


Fig.11 ISO-16750-2 TYPE A

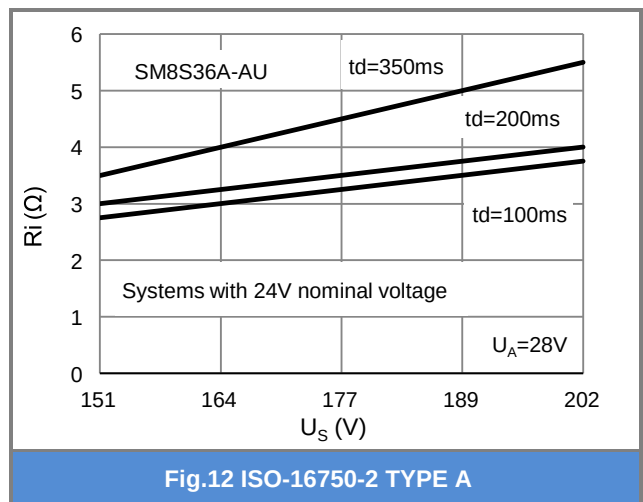


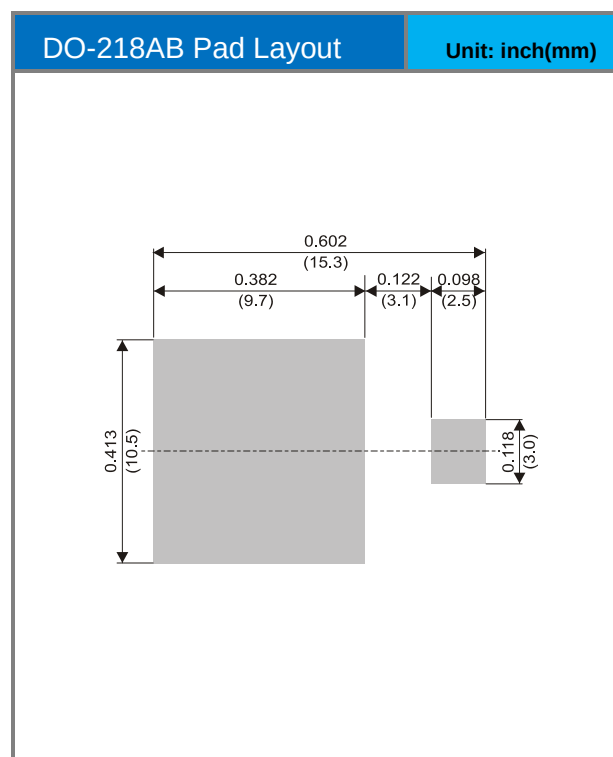
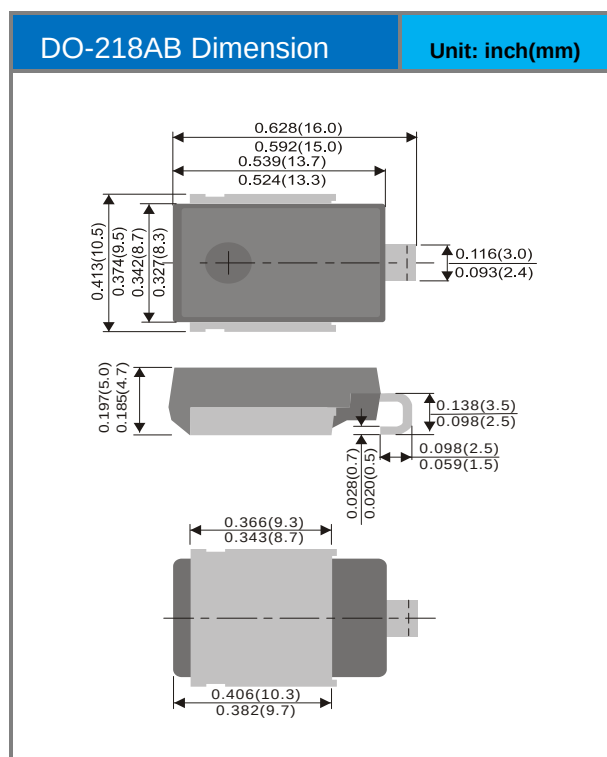
Fig.12 ISO-16750-2 TYPE A

SM8S14A-AU ~ SM8S48A-AU Series

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
SM8SxxA-AU_R2_000A1	DO-218AB	600 pcs / 13" reel	See Table	Halogen free

Packaging Information & Mounting Pad Layout





SM8S14A-AU ~ SM8S48A-AU Series

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panjit:

[SM8S43A-AU_R2_000A1](#)