

Surface Mount Superfast Recovery Rectifiers

V_{RRM}

200~600V

I_F

10 A

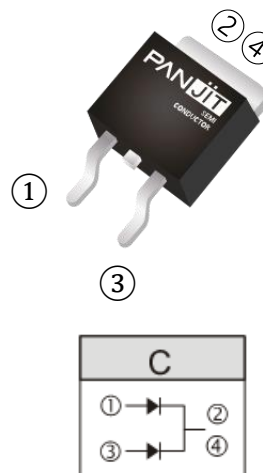
Features

- Superfast recovery times-epitaxial.
- Low forward voltage , high current capability.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: TO-252AA molded plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.3217 grams

TO-252AA



Maximum Ratings and Thermal Characteristics ($T_C = 25^\circ\text{C}$ unless otherwise specified)

PARAMETER		SYMBOL	ED1002CD	ED1003CD	ED1004CD	ED1006CD	UNIT
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	200	300	400	600	V
Maximum RMS Voltage		V _{RMS}	140	210	280	420	V
Maximum DC Blocking Voltage		V _{DC}	200	300	400	600	V
Maximum Average Forward Rectified Current		I _{F(AV)}	10				A
Peak Forward Surge Current <i>tp = 8.3 ms, single half sine-wave</i>		I _{FSM}	100				A
Maximum Forward Voltage At 5A Per Diode (Note 1)		V _F	0.95	1.3		1.7	V
Maximum DC Reverse Current	T _J =25 °C	I _R	1				μA
At Rated DC Blocking Voltage	T _J =125 °C		300				
Maximum Reverse Recovery Time (Note 2)		T _{RR}	35				nS
Typical Thermal Resistance	(Note 3)	R _{θJA}	50				°C/W
	(Note 4)	R _{θJL}	10				
	(Note 4)	R _{θJC}	12				
Operating Junction and Storage Temperature Range		T _{STG}	-55~150				°C

NOTES :

1. Pulse Test with $PW=300\ \mu\text{sec}$, 2% Duty Cycle.
2. Reverse Recovery Test Conditions : $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.
3. Mounted on a FR4 PCB, single-sided copper, standard footprint.
4. Mounted on a FR4 PCB, single-sided copper, with $100\ \text{cm}^2$ copper pad area.

TYPICAL CHARACTERISTIC CURVES

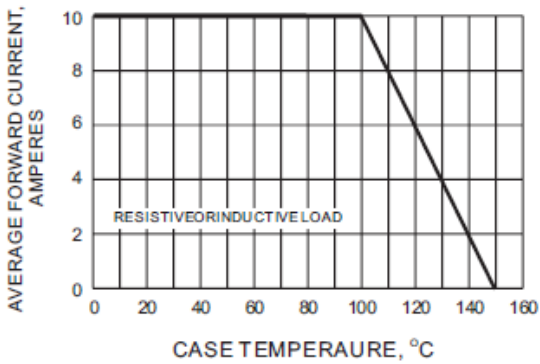


Fig.1 Forward Current Derating Curve

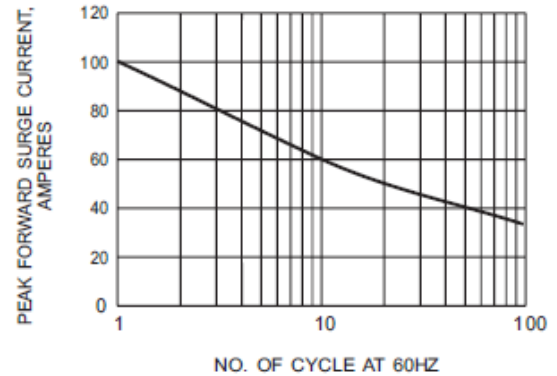


Fig.2 Typical Junction Capacitance

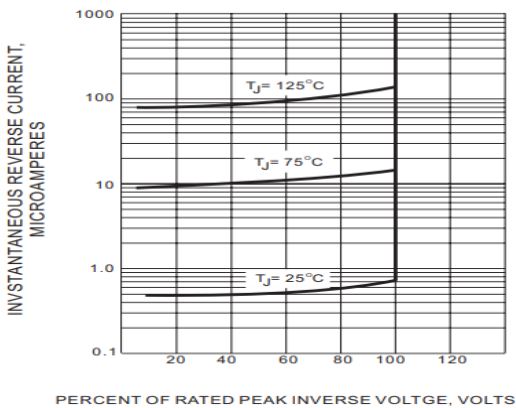


Fig.3 Typical Reverse Characteristics

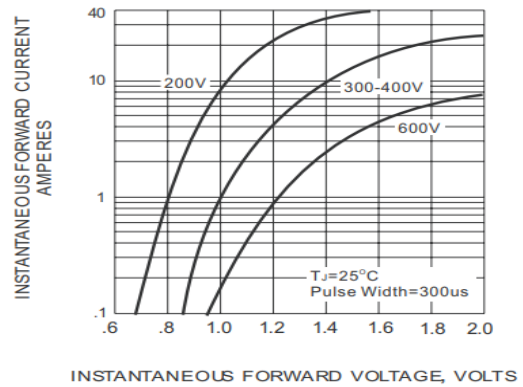
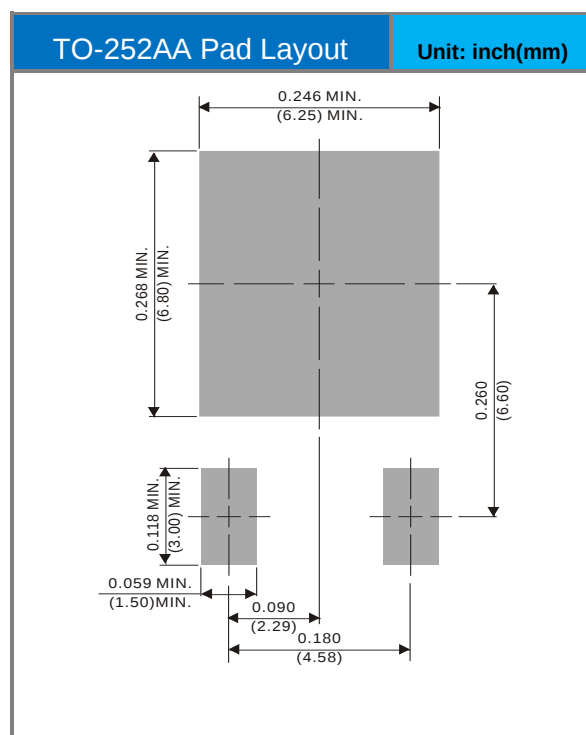
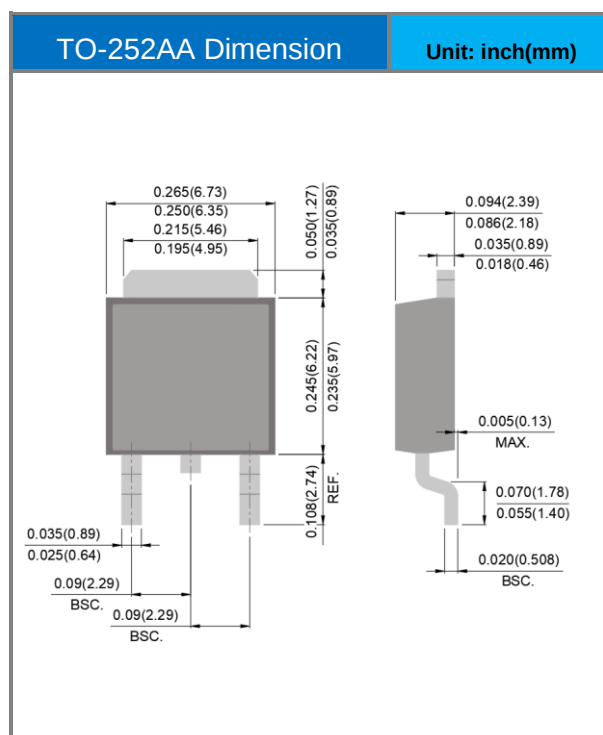


Fig.4 Typical Forward Characteristics

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
ED1002CD	TO-252AA	3K pcs / 13" reel	ED1002CD
ED1003CD	TO-252AA	3K pcs / 13" reel	ED1003CD
ED1004CD	TO-252AA	3K pcs / 13" reel	ED1004CD
ED1006CD	TO-252AA	3K pcs / 13" reel	ED1006CD

Packaging Information & Mounting Pad Layout



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