

Surface Mount Super Fast Recovery Rectifiers

V_{RRM}

200V

I_F

5 A

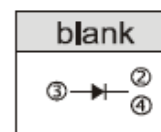
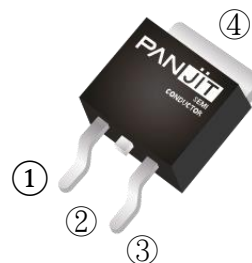
Features

- Superfast recovery times-epitaxial.
- Low forward voltage, high current capability.
- Exceeds environmental standards of MIL-S-19500/228
- 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 °C unless otherwise specified)

PARAMETER		SYMBOL	ED502D	UNITS
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	200	V
Maximum RMS Voltage		V _{RMS}	140	V
Maximum DC Blocking Voltage		V _{DC}	200	V
Maximum Average Forward Rectified Current		I _{F(AV)}	5	A
Peak Forward Surge Current <i>t_p = 8.3 ms, single half sine-wave</i>		I _{FSM}	75	A
Maximum Forward voltage at 5A per diode (Note 1)		V _F	0.95	V
Maximum DC Reverse Current At Rated DC Blocking Voltage	T _J =25 °C	I _R	1	μA
	T _J =125 °C		100	
Maximum Reverse Recovery Time (Note 2)		T _{RR}	35	nS
Typical Thermal Resistance (Note 3)	R _{θJA}		30	°C/W
	R _{θJL}		10	
	R _{θJC}		8	
Operating Junction and Storage Temperature Range		T _{STG}	-55~150	°C

NOTES :

1. Pulse Test with PW=300 μsec, 2% Duty Cycle.
2. Reverse Recovery Test Conditions : I_F=0.5A, I_R=1A, I_{rr}=0.25A.
3. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.

TYPICAL CHARACTERISTIC CURVES

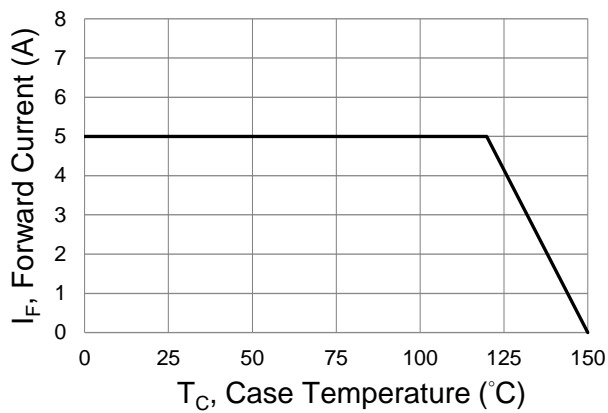


Fig.1 Forward Current Derating Curve

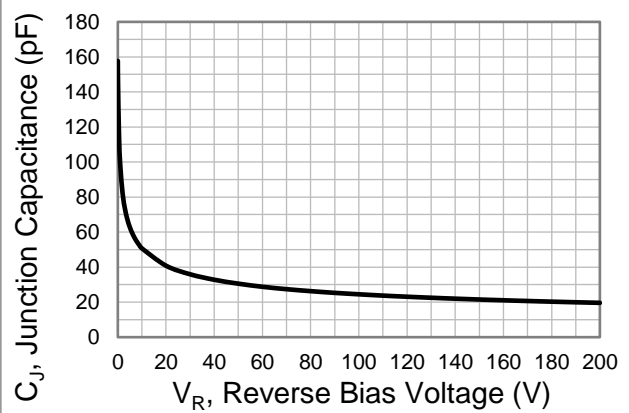


Fig.2 Typical Junction Capacitance

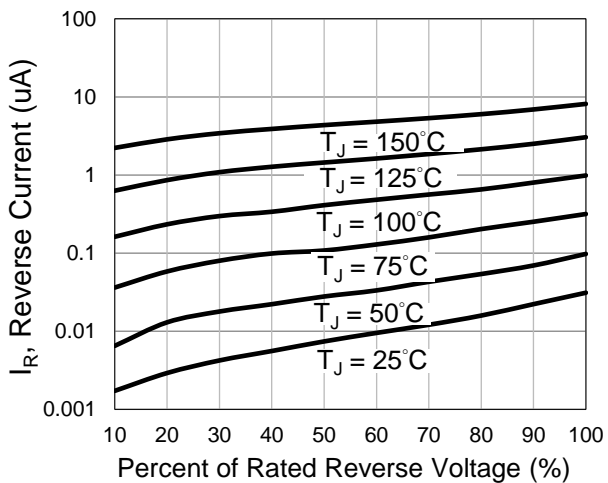


Fig.3 Typical Reverse Characteristics

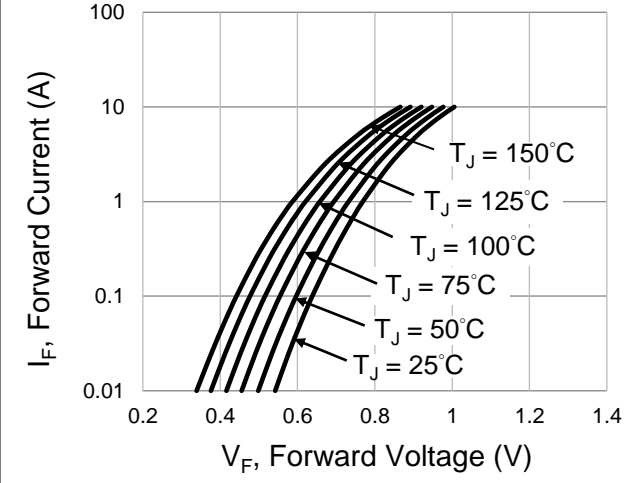
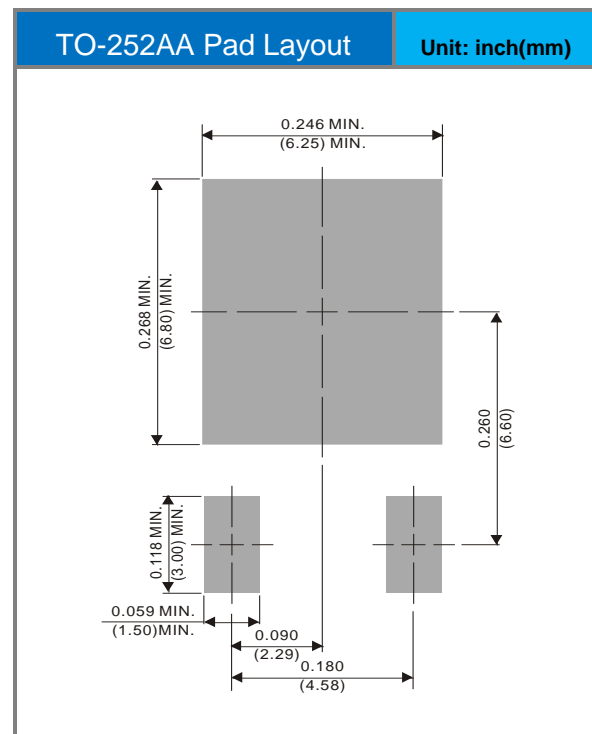
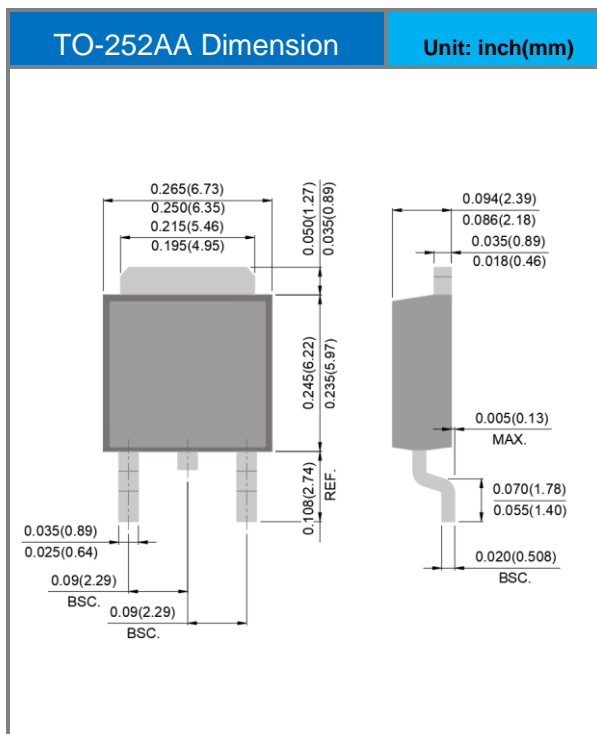


Fig.4 Typical Forward Characteristics

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
ED502D	TO-252AA	3K pcs / 13" reel	ED502D

Packaging Information & Mounting Pad Layout



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