

Surface Mount Super Fast Recovery Rectifiers

V_{RRM}

400V

I_F

5 A

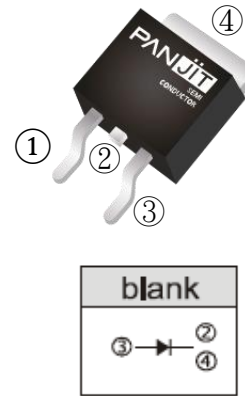
Features

- 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	ED504D	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS Voltage	V_{RMS}	280	V
Maximum DC Blocking Voltage	V_{DC}	400	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current <i>tp = 8.3 ms, single half sine-wave</i>	I_{FSM}	75	A
Maximum Forward voltage at 5A per diode (Note 1)	V_F	1.25	V
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	1 100	μA
Maximum Reverse Recovery Time (Note 2)	T_{RR}	35	nS
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$	C_J	55	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	30	$^\circ\text{C/W}$
	$R_{\theta JL}$	10	
	$R_{\theta JC}$	8	
Operating Junction and Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$

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, with 100cm^2 copper pad area.

TYPICAL CHARACTERISTIC CURVES

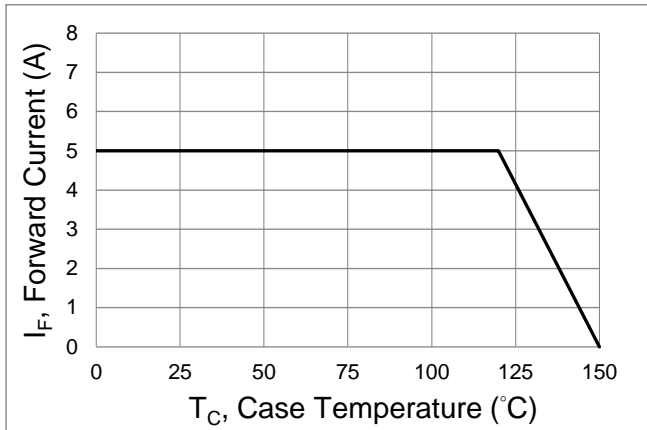


Fig.1 Forward Current Derating Curve

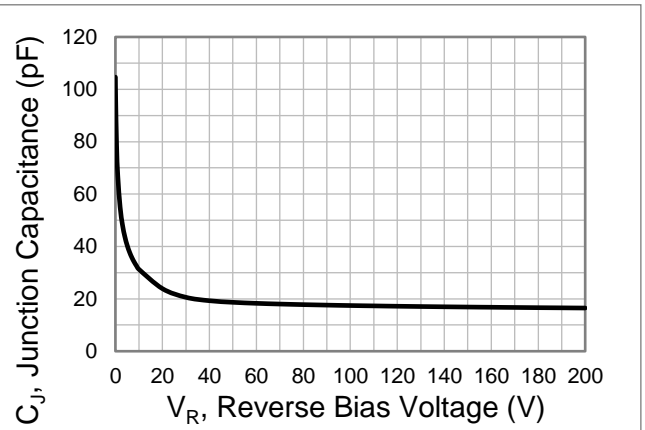


Fig.2 Typical Junction Capacitance

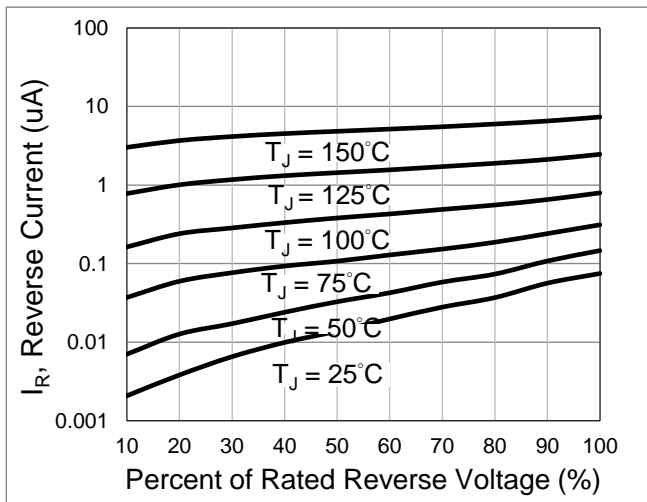


Fig.3 Typical Reverse Characteristics

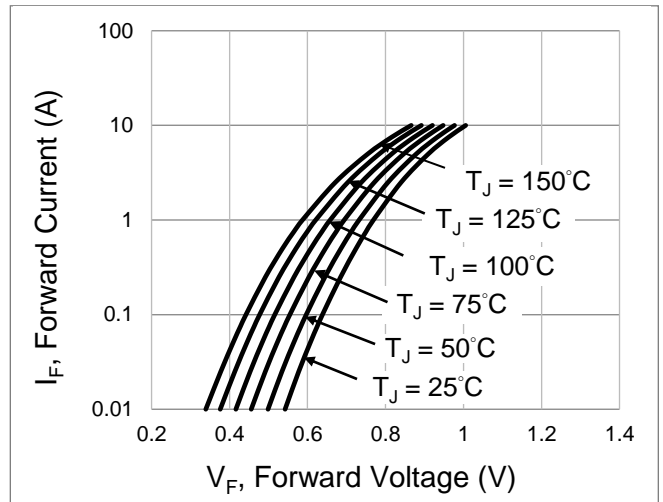
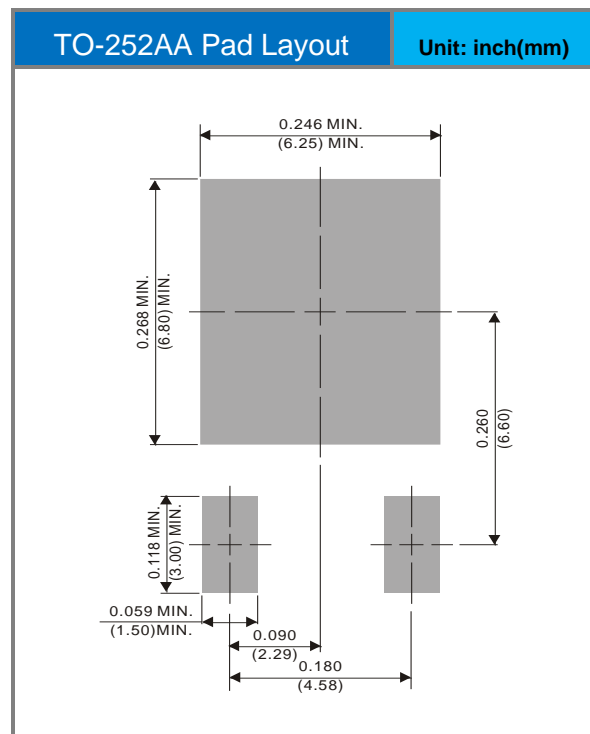
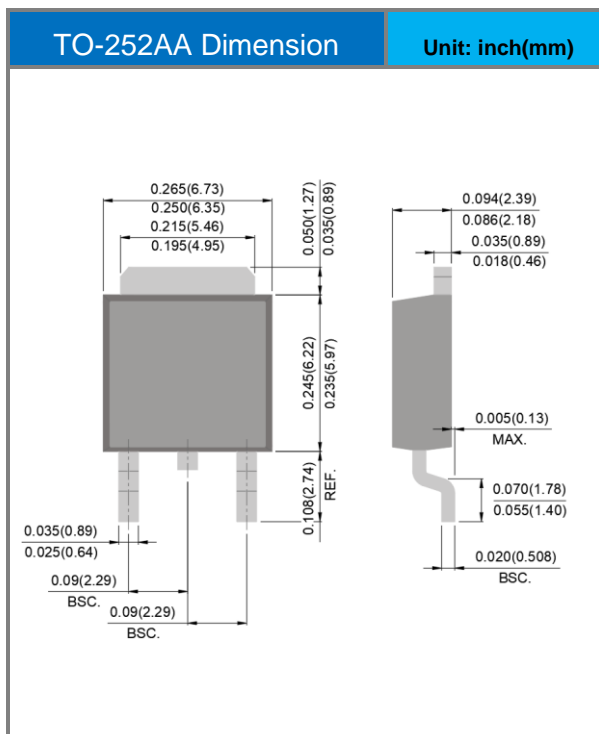


Fig.4 Typical Forward Characteristics

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
ED504D	TO-252AA	3K pcs / 13" reel	ED504D

Packaging Information & Mounting Pad Layout



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