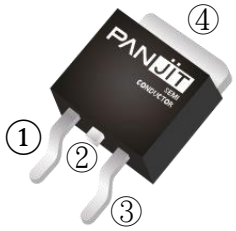
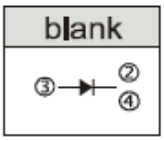
Surface Mount Super Fast Recovery Rectifiers

V_{RRM}	600V	I_F	5 A

TO-252AA





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

Maximum Ratings and Thermal Characteristics (T_C = 25 °C unless otherwise specified)

PARAMETER		SYMBOL	ED506D	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Maximum RMS Voltage		V_{RMS}	420	V
Maximum DC Blocking Voltage		V_{DC}	600	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	5	A
Peak Forward Surge Current *tp = 8.3 ms, single half sine-wave*		I_{FSM}	75	A
Maximum Forward voltage at 5A per diode (Note 1)		V_F	1.7	V
Maximum DC Reverse Current	T_J=25 °C	I_R	1	μA
At Rated DC Blocking Voltage	T_J=125 °C		100	
Maximum Reverse Recovery Time (Note 2)		T_{RR}	35	nS
Typical Junction Capacitance Measured at 1 MHz And Applied VR = 4 V		C_J	55	pF
Typical Thermal Resistance (Note 3)		$R_{\theta JA}$ $R_{\theta JL}$ $R_{\theta JC}$	30 10 8	°C/W
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 100cm^2 copper pad area.

TYPICAL CHARACTERISTIC CURVES

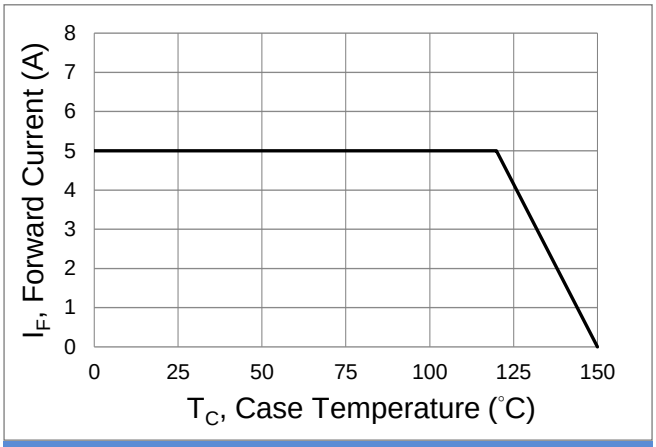


Fig.1 Forward Current Derating Curve

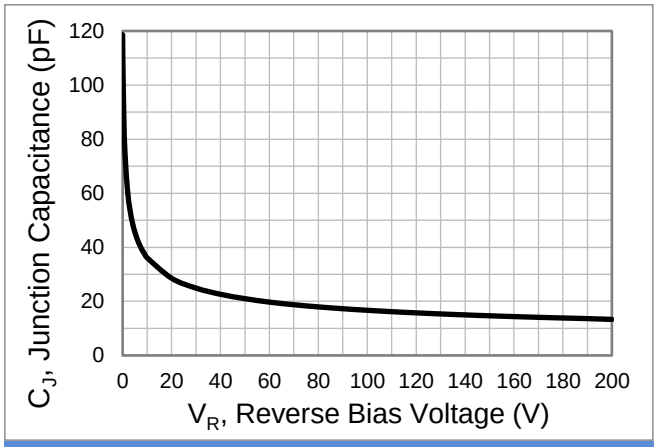


Fig.2 Typical Junction Capacitance

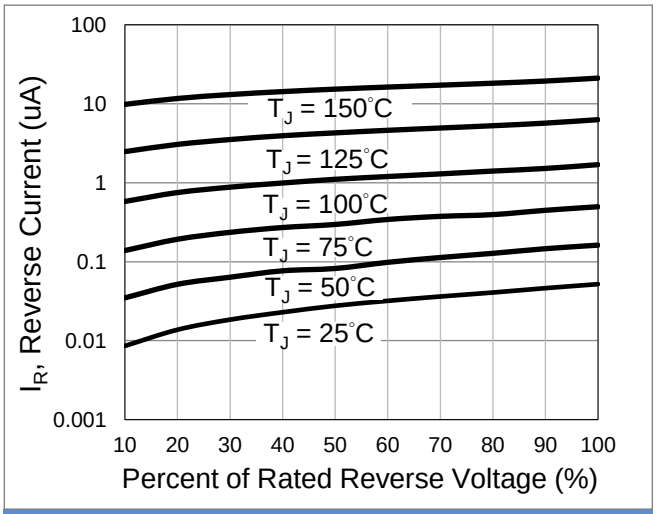


Fig.3 Typical Reverse Characteristics

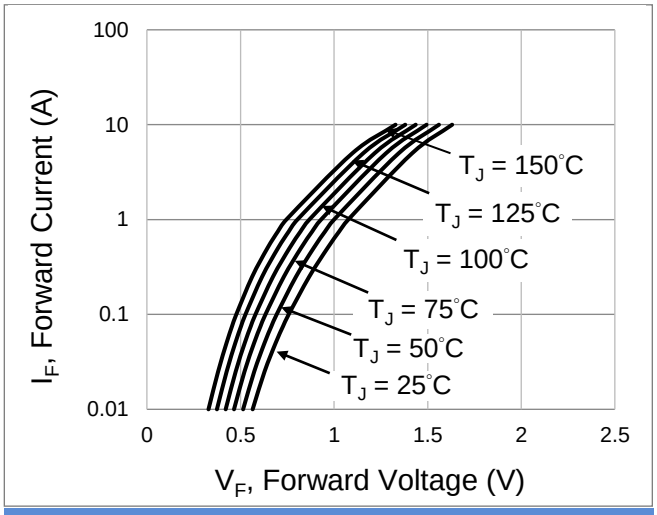


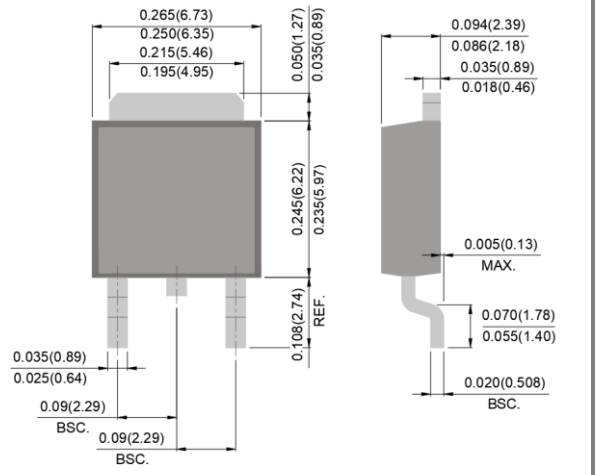
Fig.4 Typical Forward Characteristics

Product and Packing Information

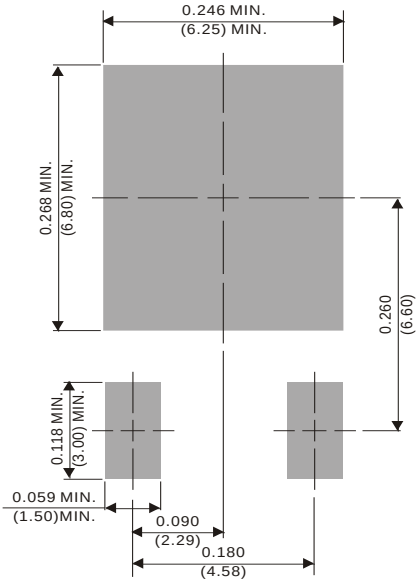
Part No.	Package Type	Packing Type	Marking
ED506D	TO-252AA	3K pcs / 13” reel	ED506D

Packaging Information & Mounting Pad Layout

TO-252AA Dimension — Unit: inch(mm)



TO-252AA Pad Layout — Unit: inch(mm)



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