

STRN30100VCT

Surface Mount Low V<sub>F</sub> Schottky Barrier Rectifier

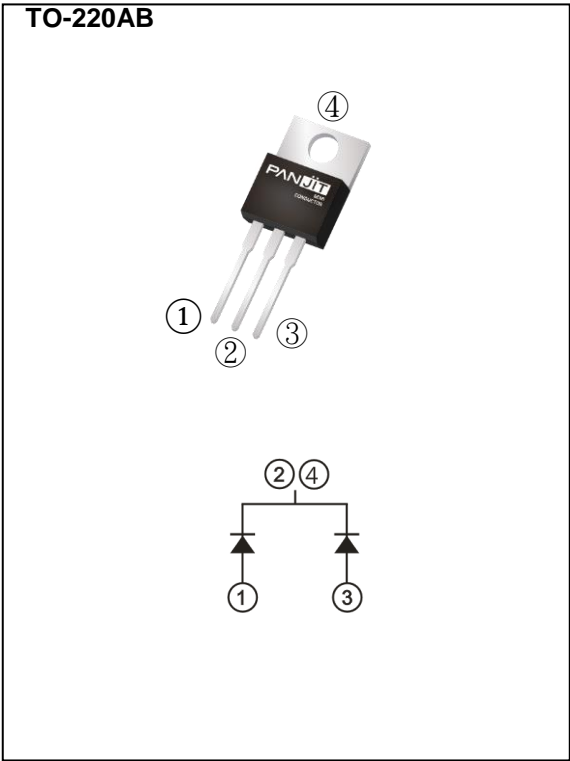
Voltage	100 V	Current	30 A
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Features

- Low forward voltage drop
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : TO-220AB Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 1.8904 grams



Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	100	V
Maximum RMS Voltage		V <sub>RMS</sub>	70	V
Maximum DC Blocking Voltage		V <sub>DC</sub>	100	V
Maximum Average Forward Current	per device	I <sub>F(AV)</sub>	30	A
	per diode		15	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load		I <sub>FSM</sub>	250	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V <sub>R</sub> = 4 V		C <sub>J</sub>	1180	pF
Typical Thermal Resistance <sup>(Note 1)</sup>		R <sub>θJA</sub>	52	°C/W
		R <sub>θJC</sub>	1	
		R <sub>θJL</sub>	1.55	
Operating Junction Temperature Range		T <sub>J</sub>	-55~150	°C
Storage Temperature Range		T <sub>STG</sub>	-55~150	°C

NOTES : 1. Device mounted on a infinite heatsink.

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Electrical Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1 A, T <sub>J</sub> = 25 °C	-	0.39	0.44	V
		I <sub>F</sub> = 5 A, T <sub>J</sub> = 25 °C	-	0.49	0.54	
		I <sub>F</sub> = 15 A, T <sub>J</sub> = 25 °C	-	0.65	0.7	
		I <sub>F</sub> = 1 A, T <sub>J</sub> = 125 °C	-	0.26	0.31	
		I <sub>F</sub> = 5A, T <sub>J</sub> = 125 °C	-	0.42	0.47	
		I <sub>F</sub> = 15, T <sub>J</sub> = 125 °C	-	0.62	0.67	
Reverse Current <sup>(Note 2)</sup>	I <sub>R</sub>	V <sub>R</sub> = 80 V, T <sub>J</sub> = 25 °C	-	4	24	uA
		V <sub>R</sub> = 100 V, T <sub>J</sub> = 25 °C	-	6.5	90	
		V <sub>R</sub> = 100V,T <sub>J</sub> = 125 °C	-	6	36	mA

NOTES : 2. Short duration pulse test used to minimize self-heating effect.

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TYPICAL CHARACTERISTIC CURVES

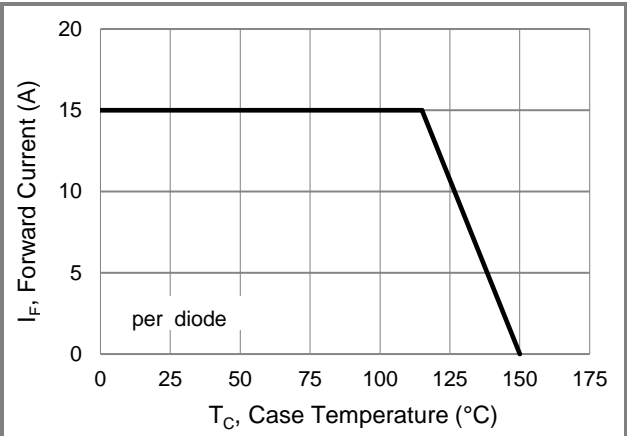


Fig.1 Forward Current Derating Curve

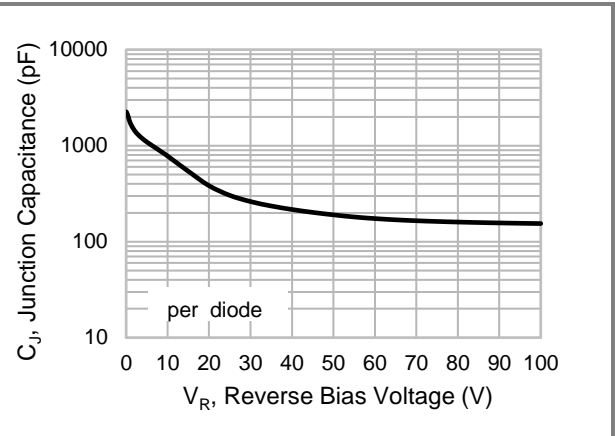


Fig.2 Typical Junction Capacitance

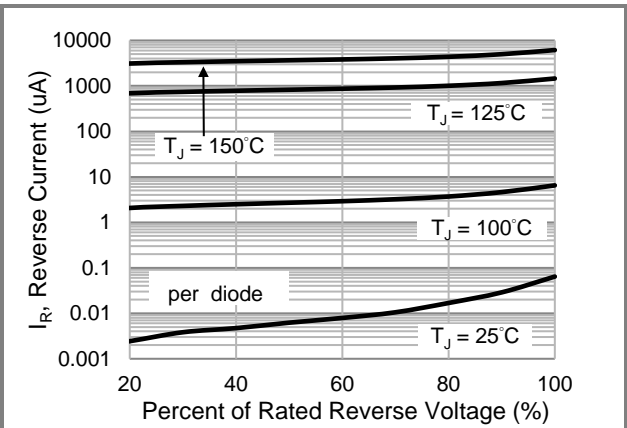


Fig.3 Typical Reverse Characteristics

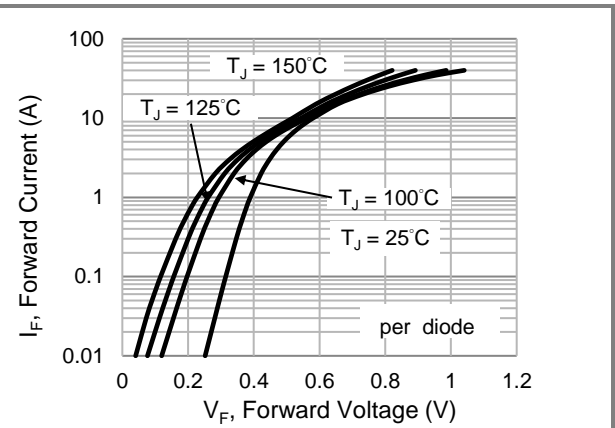


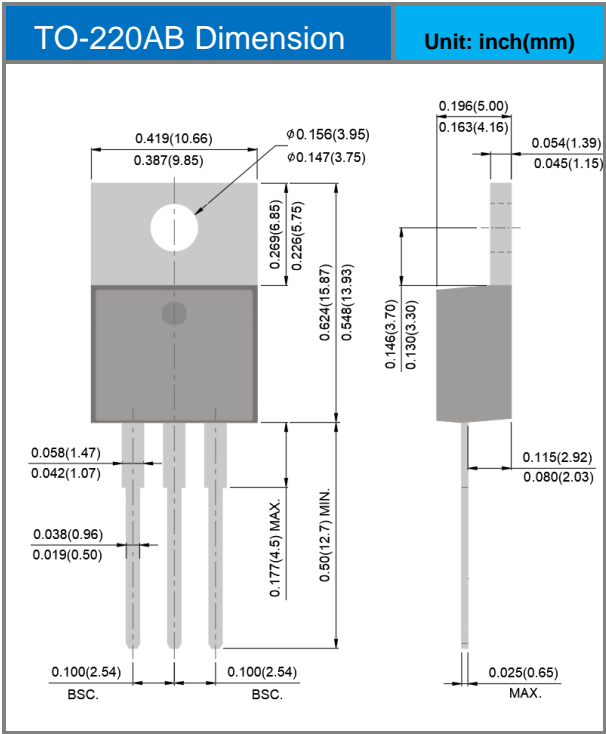
Fig.4 Typical Forward Characteristics

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
STRN30100VCT	TO-220AB	50pcs / Tube	TN30100VCT

Packaging Information



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