



Surface Mount Low V_F Schottky Barrier Rectifier

Voltage

100 V

Current

40 A

Features

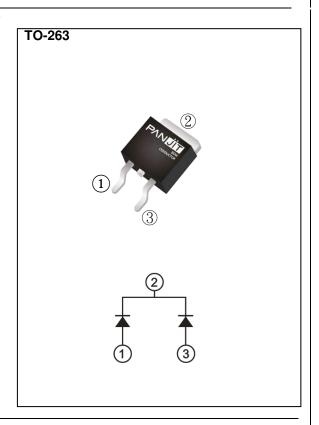
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

• Case: TO-263 Package

• Terminals : Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 1.38 grams



Maximum Ratings and Thermal Characteristics ($T_A = 25$ $^{\circ}$ C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS		
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	100	V	
Maximum RMS Voltage		V _{RMS}	70	V	
Maximum DC Blocking Voltage		V _{DC}	100	V	
Maximum Average Forward Current	per device per diode	I _{F(AV)}	40 20	А	
Peak Forward Surge Current : 8.3 ms Si Wave Superimposed On Rated Load Pe	Ifsм	200	А		
Typical Junction Capacitance Measured at 1 MHZ And Applied $V_R = 4 \text{ V}$		C₃	820	pF	
Typical Thermal Resistance	(Note 1) (Note 2) (Note 2)	Reja Rejc Rejl	52 7.5 5.5	°C/W	
Operating Junction Temperature Range		TJ	-55~150	°C	
Storage Temperature Range		T _{STG}	-55~150	°C	





Electrical Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage Per Diode	VF	I _F = 1 A, T _J = 25 °C	-	0.38	-	V
		I _F = 10 A, T _J = 25 °C	-	0.58	-	
		I _F = 20 A, T _J = 25 °C	-	-	0.81	
		I _F = 1 A, T _J = 125 °C	-	0.26	-	
		I _F = 10 A, T _J = 125 °C	-	0.55	-	
		I _F = 20 A, T _J = 125 °C	-	0.68	-	
Reverse Current Per Diode ^(Note 3)	IR	V _R = 80 V, T _J = 25 °C	-	7	-	uA
		V _R = 100 V, T _J = 25 °C	-	-	100	
		V _R = 100V,T _J = 125 °C	-	9	-	mA

NOTES:

- 1. Mounted on a FR4 PCB, single-sided copper, standard footprint.
- 2. Mounted on a FR4 PCB, single-sided copper, with 100 cm² copper pad area.
- 3. Short duration pulse test used to minimize self-heating effect.





TYPICAL CHARACTERISTIC CURVES

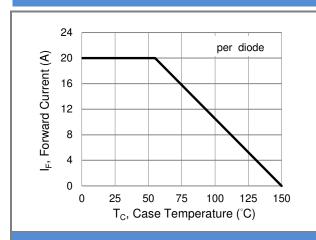


Fig.1 Forward Current Derating Curve

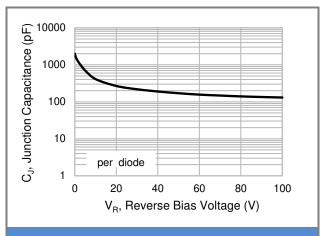


Fig.2 Typical Junction Capacitance

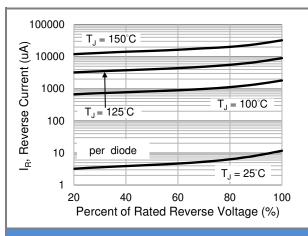


Fig.3 Typical Reverse Characteristics

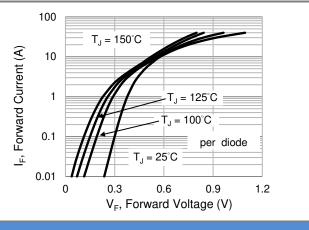


Fig.4 Typical Forward Characteristics

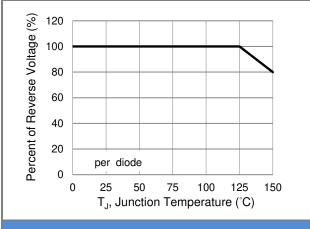


Fig.5 Operating Temperature Derating Curve

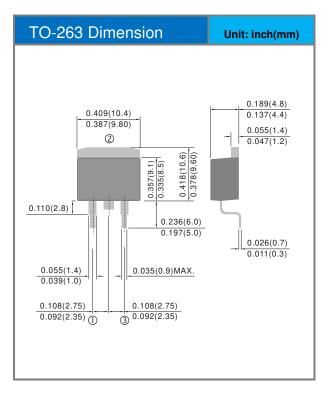


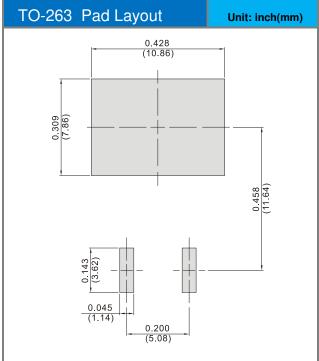


Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
STR40100CB_R2_00001	TO-263	800 pcs / 13" reel	STR40100CB	Halogen free RoHS compliant

Packaging Information & Mounting Pad Layout









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