

SBM1260VCD

Surface Mount Extreme Low V_f Schottky Barrier Rectifier

Voltage

60 V

Current

12 A

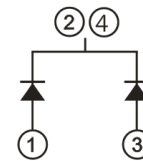
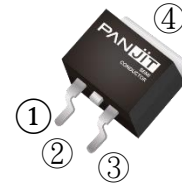
Features

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

Mechanical Data

- Case : TO-252AA Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.3217 grams

TO-252AA



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

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Maximum RMS Voltage	V_{RMS}	42	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Current	$I_{F(AV)}$	per device	12
		per diode	6
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	120	A
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$	C_J	960	pF
Typical Thermal Resistance Per Diode	(Note 1) $R_{\theta JA}$	50	$^\circ\text{C/W}$
	(Note 2) $R_{\theta JC}$	8.4	
	(Note 2) $R_{\theta JL}$	6.4	
Operating Junction Temperature Range	T_J	-55~150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$

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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage Per Diode	V_F	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.33	-	V
		$I_F = 3\text{ A}, T_J = 25^\circ\text{C}$	-	0.41	-	V
		$I_F = 6\text{ A}, T_J = 25^\circ\text{C}$	-	0.43	0.55	V
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.25	-	V
		$I_F = 3\text{ A}, T_J = 125^\circ\text{C}$	-	0.37	-	V
		$I_F = 6\text{ A}, T_J = 125^\circ\text{C}$	-	0.4	-	V
Reverse Current Per Diode	I_R	$V_R = 48\text{ V}, T_J = 25^\circ\text{C}$	-	28	-	μA
		$V_R = 60\text{ V}, T_J = 25^\circ\text{C}$	-	43	210	
		$V_R = 60\text{ V}, T_J = 125^\circ\text{C}$	-	8	-	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.

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TYPICAL CHARACTERISTIC CURVES

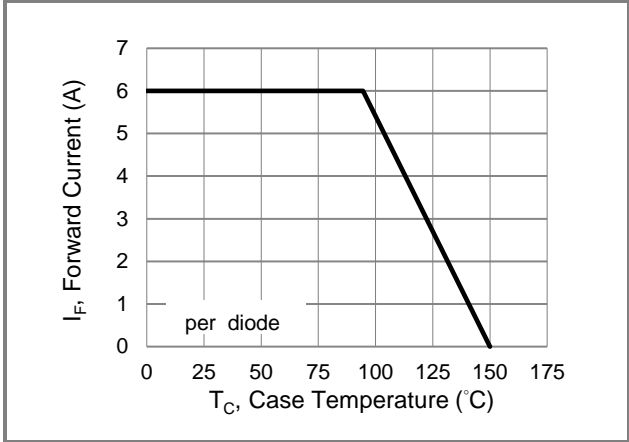


Fig.1 Forward Current Derating Curve

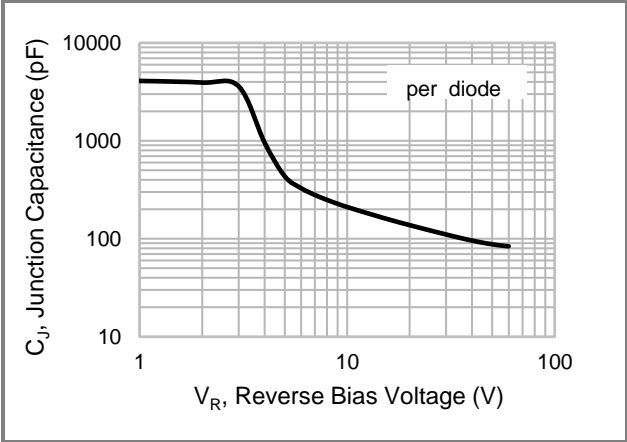


Fig.2 Typical Junction Capacitance

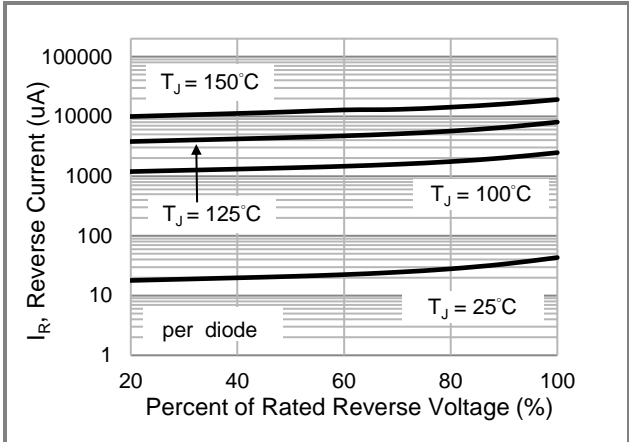


Fig.3 Typical Reverse Characteristics

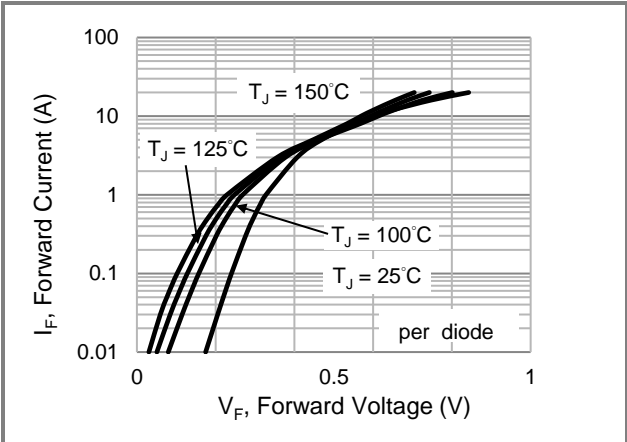


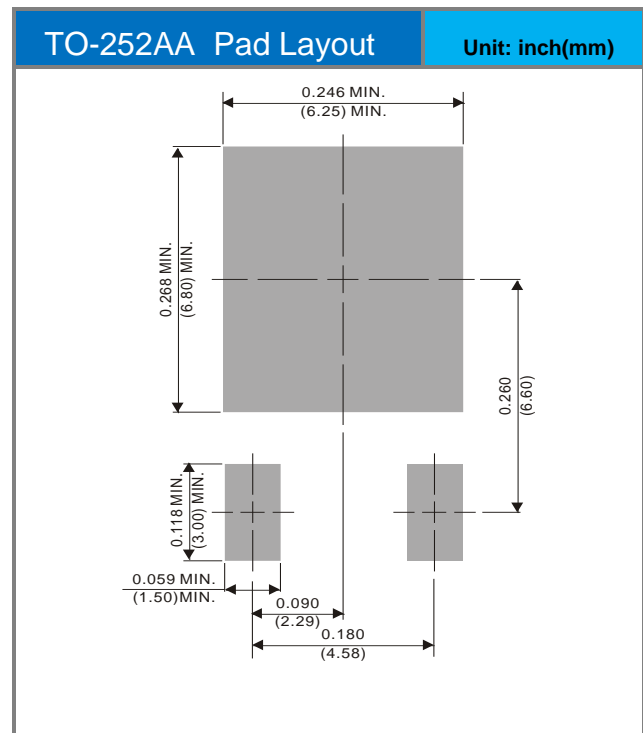
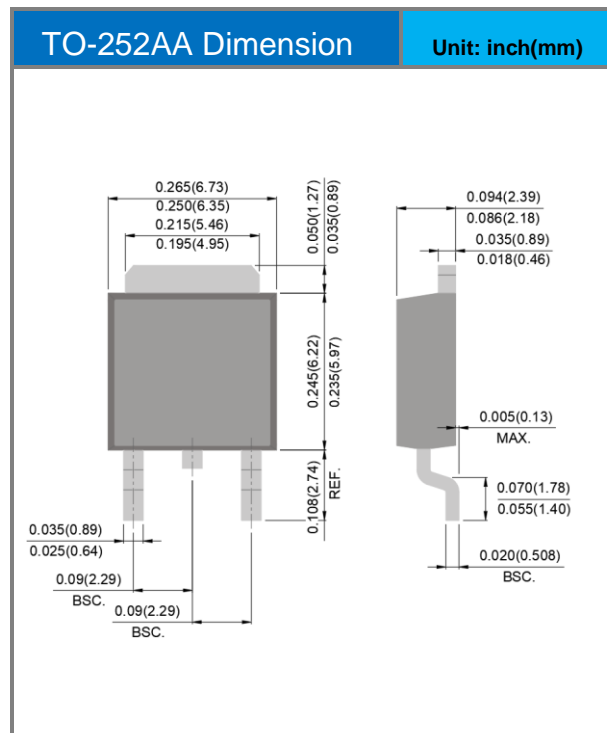
Fig.4 Typical Forward Characteristics

SBM1260VCD

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SBM1260VCD	TO-252AA	3K pcs / 13" reel	SM1260VC

Packaging Information & Mounting Pad Layout



SBM1260VCD

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