SD10PU80

Product profile

High Current Density Surface Mount Ultra Low VF Schottky Rectifier

General description

Rectifiers 10 Amp 80V

Features

Very low profile - typical height of 1.1 mm

Ideal for automated placement

Low forward voltage drop, low power losses

High efficiency

Low thermal resistance

Meets MSL level 1, per J-STD-020

Solder dip 260 °C max. 10 s, per JESD 22-A111

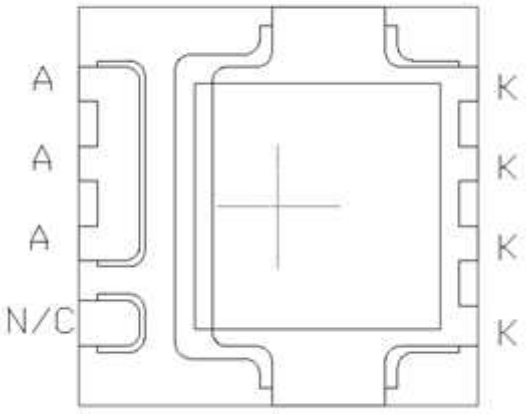
Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Mechanical data

Case: **DFN 3.3X3.3**

Molding compound meets UL 94 V-0 flammability

DFN 3.3X3.3 X1.0mm



Maximum Ratings (Tc=25°C unless otherwise noted)			
Parameter	**Symbol**	**SD10PU80**	**Unit**
Maximum repetitive peak reverse voltage	VRRM	80	V
RMS Voltage (Max.)	VRMS	56	V
Working peak reverse voltage	VRWM	80	V
Maximum average forward rectified current Total Device	IF(AV)	10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100	A
Operating junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

THERMAL CHARACTERISTICS			
Parameter	**Symbol**	**Value**	**Unit**
Typical thermal resistance	RθJC	3	°C/W

Notes: (1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40

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Electrical characteristics (Tc=25°C unless otherwise noted)

OFF CHARACTERISTICS

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage				
at IF=5A, Tj=25°C		0.51	0.55	
at IF=10A, Tj=25°C	VF	0.61	0.66	V
at IF=5A, Tj=125°C		0.44	0.47	
at IF=10A, Tj=125°C		0.56	0.61	
Maximum reverse current Tj=25°C	IR	50		u'A
at working peak reverse voltage Tj=125°C		30		m'A

DEVICE MARK

SD10PU80

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■ Characteristic Curves

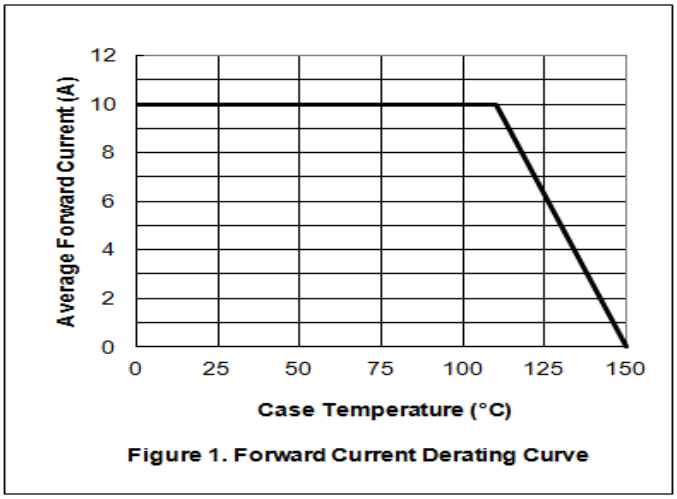

Figure 1. Forward Current Derating Curve

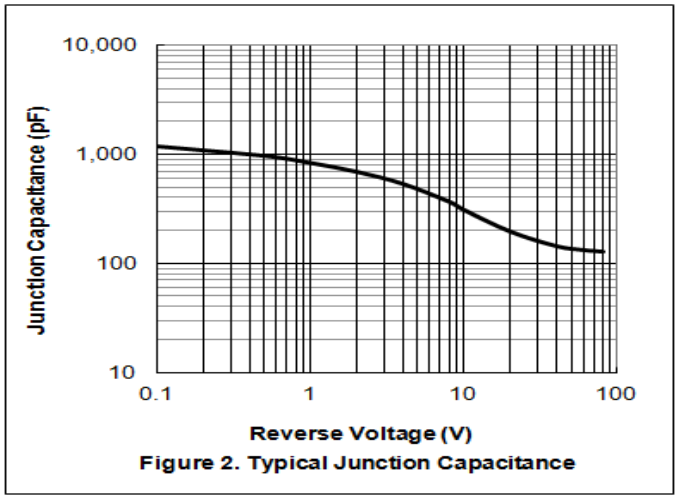

Figure 2. Typical Junction Capacitance

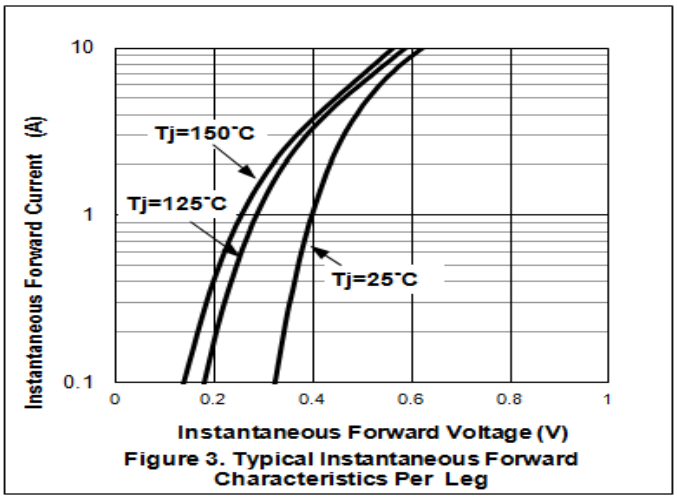

Figure 3. Typical Instantaneous Forward Characteristics Per Leg

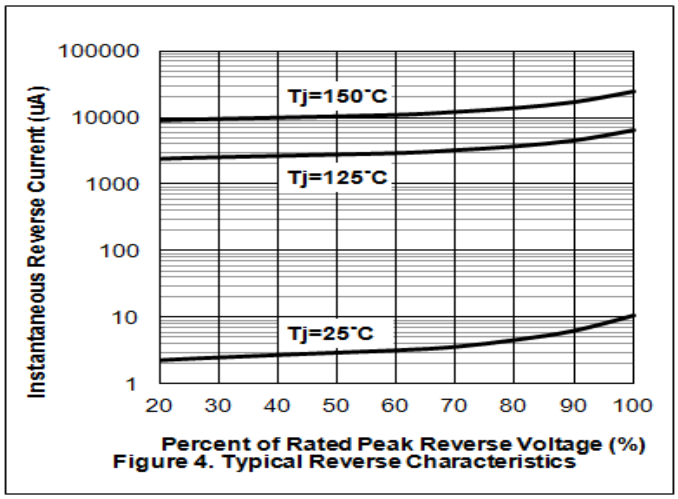

Figure 4. Typical Reverse Characteristics

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