

SS10PU100S

High Current Density Surface Mount Ultra Low VF Schottky Rectifier

Description

The SS10PU100S provides very low VF and excellent reverse leakage stability at high temperatures in TO-277A/B package. It is ideal for use as a rectifier, freewheel diode or blocking diode

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
- RoHS compliant package

Application

- DC/DC Converters
- AC/DC Adaptors

Mechanical Data

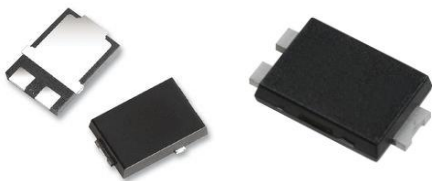
- Case: Conform to JEDEC TO-277A; Suffix /A
Industry TO-277B; Suffix /B
- Molding compound meets UL 94 V-0 flammability

Packing & Order Information

3,000/Reel

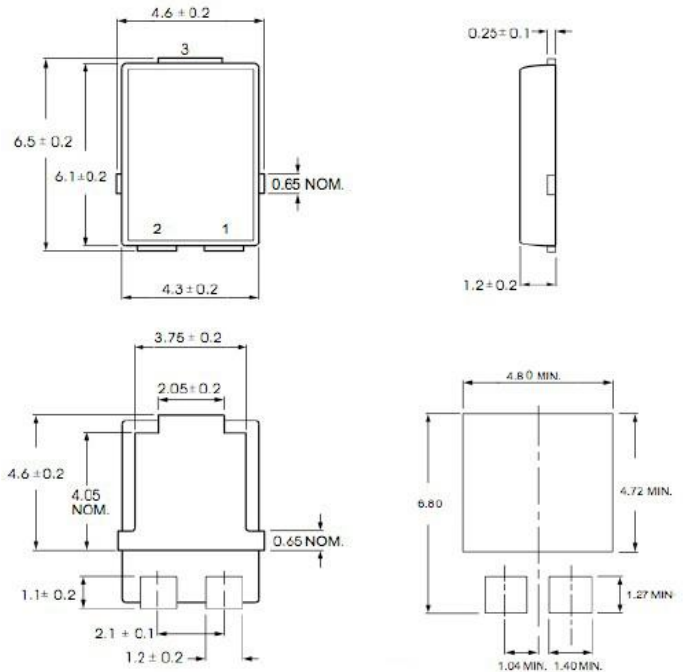
TO-277A

TO-277B

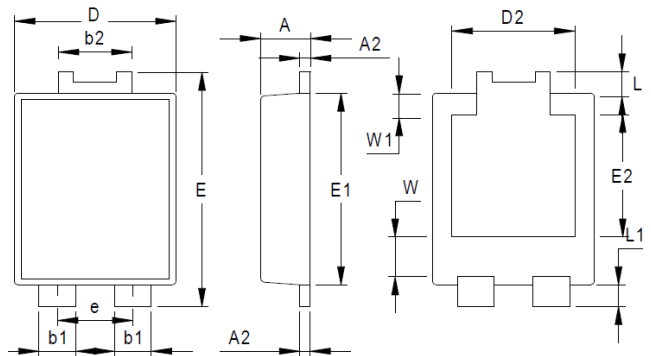


**RoHS
COMPLIANT**

TO-277A



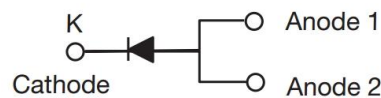
TO-277B



NO	Dimensions	NO	Dimensions
A	1.20±0.1	e	1.84Typ
A2	0.25±0.05	E1	5.3±0.1
b1	0.9±0.1	E2	3.3±0.2
b2	1.8±0.1	L	0.6±0.1
D	3.95±0.1	L1	0.6±0.1
D2	3.00Typ	W	1.3±0.2
E	6.5±0.1	W1	0.8±0.15

All Dimensions in mm

Graphic symbol



SS10PU100S

High Current Density Surface Mount
Ultra Low VF Schottky Rectifier

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)

Parameter	Symbol	SS10PU100S	Unit
Maximum repetitive peak reverse voltage	VRRM	100	V
Working peak reverse voltage	VRWM	100	V
Maximum DC blocking voltage	VDC	100	V
Maximum average forward rectified current	IF(AV)	10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	210	A
Non-repetitive avalanche energy at 25 °C IAS = 2 A per diode	EAS	20	m'J
Operating junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

Note:

- (1) Mounted on 30 mm x 30 mm Al P.C.B. with 50 mm x 25 mm x 100 mm fin heat sink
- (2) Free air, mounted on recommended copper pad area

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

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=10A, Tj=25°C at IF=10A, Tj=125°C	VF	0.65 0.58	0.68	V
Maximum reverse current per leg Tj=25°C	IR	20		u'A
at working peak reverse voltage Tj=125°C		5		m'A

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

Parameter	Symbol	Value	Unit
Typical thermal resistance	RθJA	60	°C/W
	Rthjc	3	

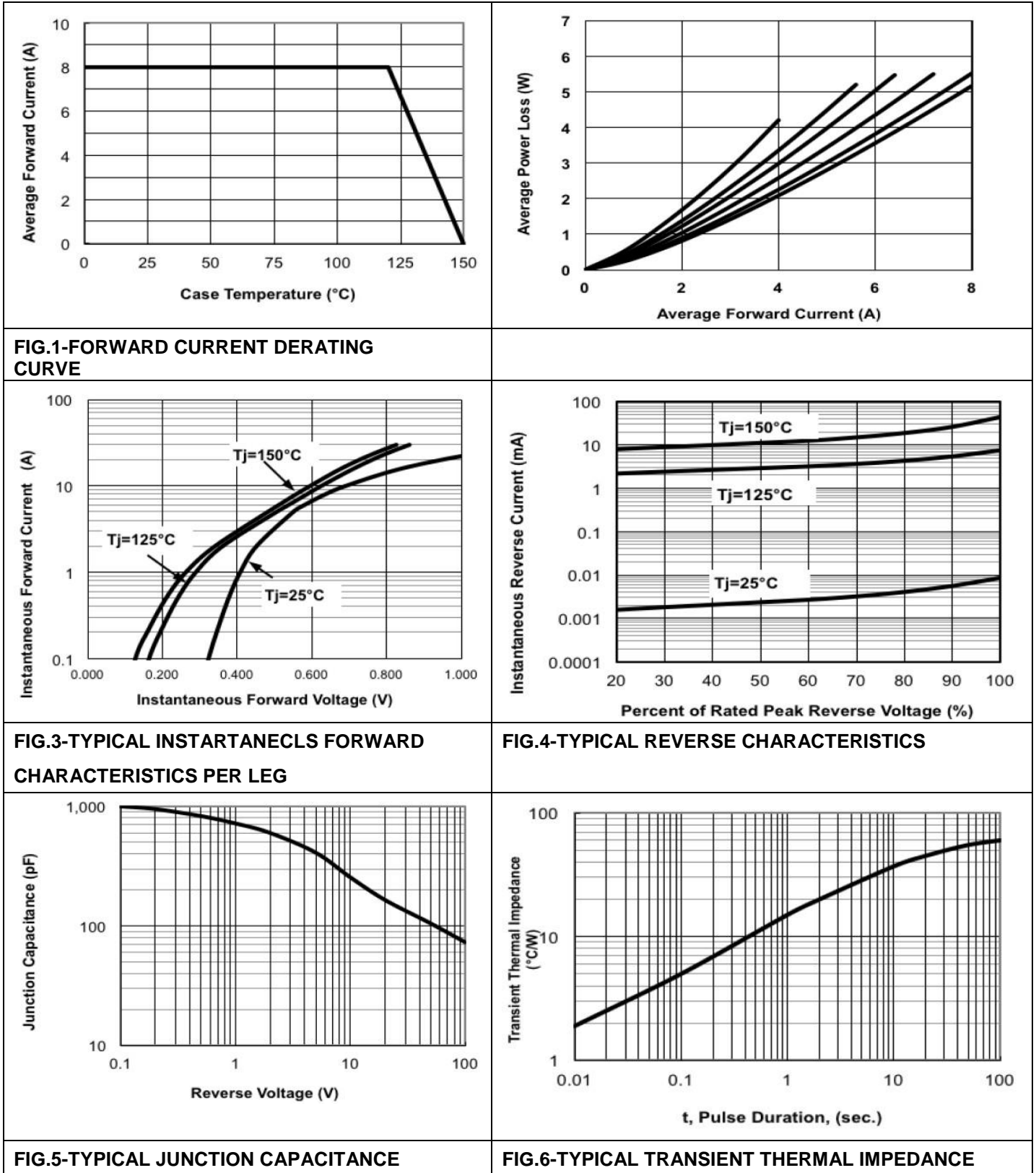
Notes:

- (1) Pulse test: 300 μs pulse width, 1 % duty cycle
- (2) Pulse test: Pulse width ≤ 40 ms

SS10PU100S

High Current Density Surface Mount
Ultra Low VF Schottky Rectifier

■ Characteristics Curve



SS10PU100S

High Current Density Surface Mount
Ultra Low VF Schottky Rectifier

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE. Bruckewell Technology Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Bruckewell"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product. Bruckewell makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Bruckewell disclaims

- (i) Any and all liability arising out of the application or use of any product.
- (ii) Any and all liability, including without limitation special, consequential or incidental damages.
- (iii) Any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Bruckewell's knowledge of typical requirements that are often placed on Bruckewell products in generic applications.

Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time.

Product specifications do not expand or otherwise modify Bruckewell's terms and conditions of purchase, including but not limited to the warranty expressed therein.