

Preliminary SS10PU120S

High Surge Protection

High Current Density Surface Mount

Ultra Low VF Schottky Rectifier

Description

The SS10PU120S 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

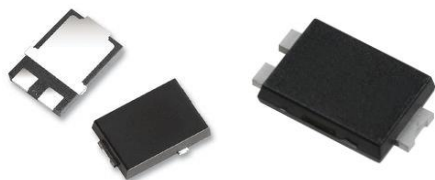
- Case: Conform to JEDEC TO-277A; Suffix /A
Industry TO-277B; Suffix /B
- Molding compound meets UL 94 V-0 flammability

Packing & Order Information

3,000/Reel

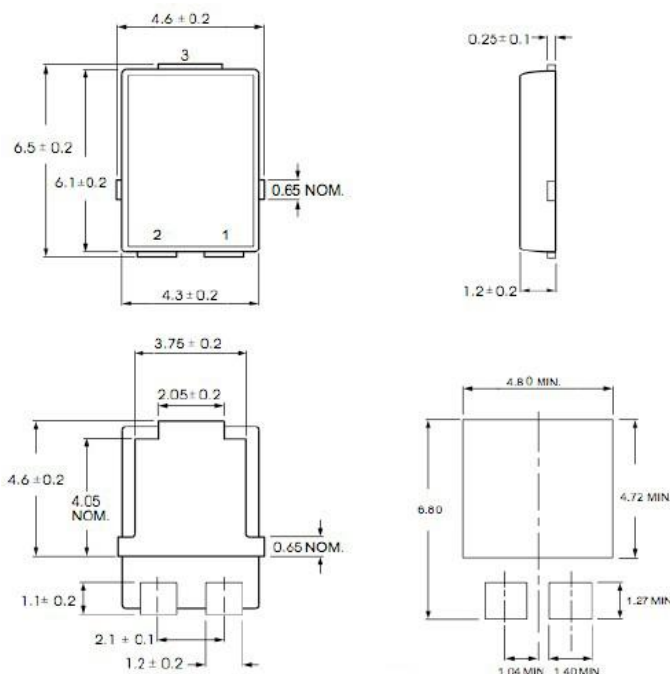
TO-277A

TO-277B

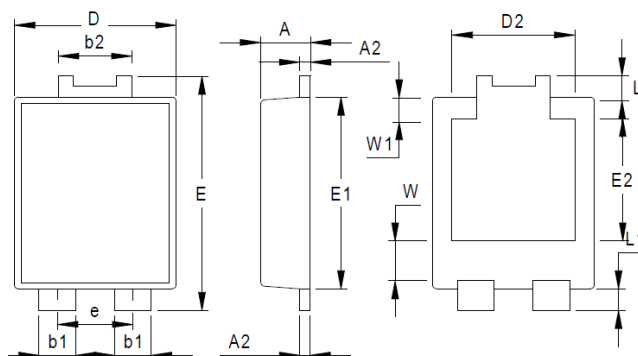


**RoHS
COMPLIANT**

TO-277A

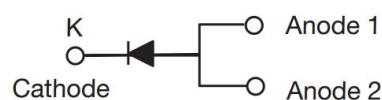


TO-277B



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



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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	SS10PU120S	Unit
Maximum repetitive peak reverse voltage	VRRM	120	V
Working peak reverse voltage	VRWM	120	V
Maximum DC blocking voltage	VDC	120	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	0.68 0.60	0.73	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

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