

## High Current Density Surface Mount Schottky Rectifier SS5P100

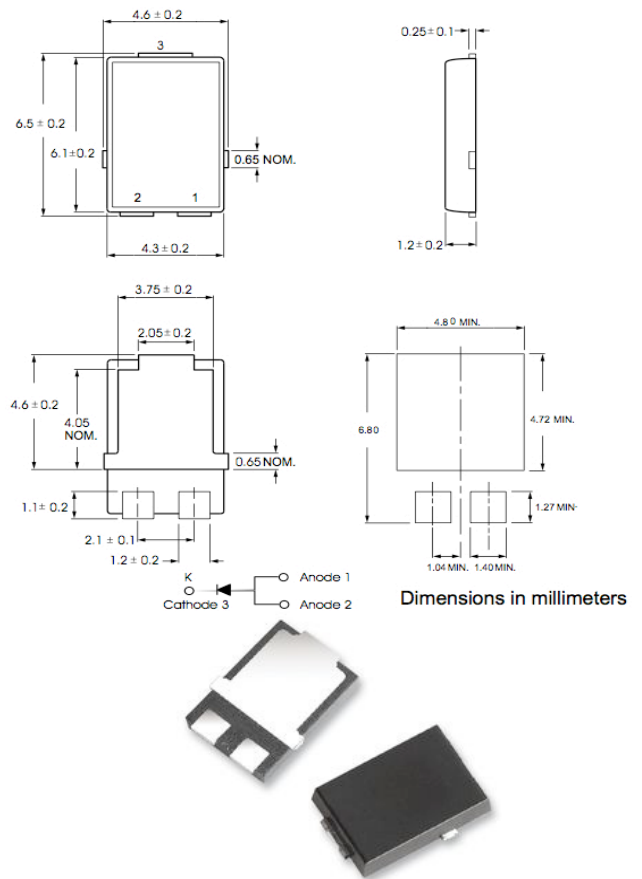
### FEATURES

- 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 JEDEC 22-A111
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

### MECHANICAL DATA

**Case: Conform to JEDEC TO-277A**

Molding compound meets UL 94 V-0 flammability



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

#### Maximum Ratings (T<sub>c</sub>=25°C unless otherwise noted)

Parameter	Symbol	SS5P100	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 Total device	IF(AV)	5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150	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=5A, Tj=25°C at IF=5A, Tj=125°C	VF	0.80 0.65	0.85	V
Maximum reverse current per leg Tj=25°C	IR	15		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