

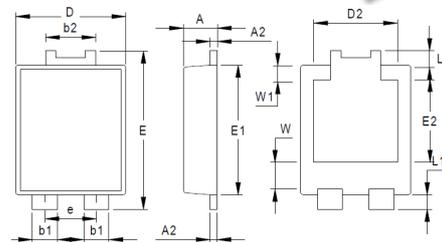
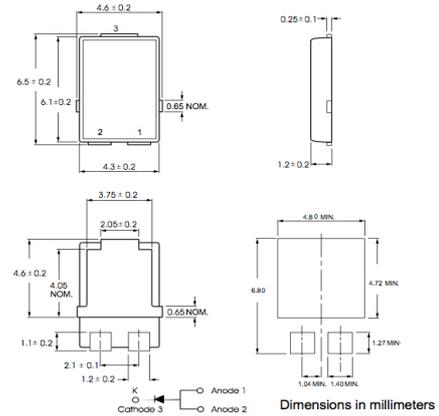
High Current Density Surface Mount Schottky Rectifier SS10PU50/ A/B

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



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



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

Parameter	Symbol	SS10PU50	Unit
Maximum repetitive peak reverse voltage	VRRM	50	V
Working peak reverse voltage	VRWM	30	V
Maximum DC blocking voltage	VDC	50	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	200	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, mount

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

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at $I_F=10\text{A}$, $T_j=25^\circ\text{C}$ at $I_F=10\text{A}$, $T_j=125^\circ\text{C}$	VF	0.45 0.38	0.50	V
Maximum reverse current $T_j=25^\circ\text{C}$	IR	150		μA
at working peak reverse voltage $T_j=125^\circ\text{C}$		50		$\text{m}'\text{A}$

Thermal characteristics ($T_c=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Typical thermal resistance	$R_{\theta JA}$	60	$^\circ\text{C}/\text{W}$
	R_{thjc}	3	

Notes:

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

Characteristics Curve

Fig. 1 - Forward Current Derating Curve

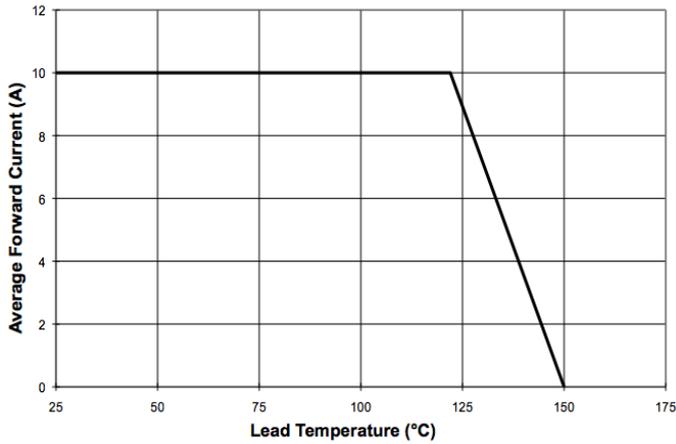


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

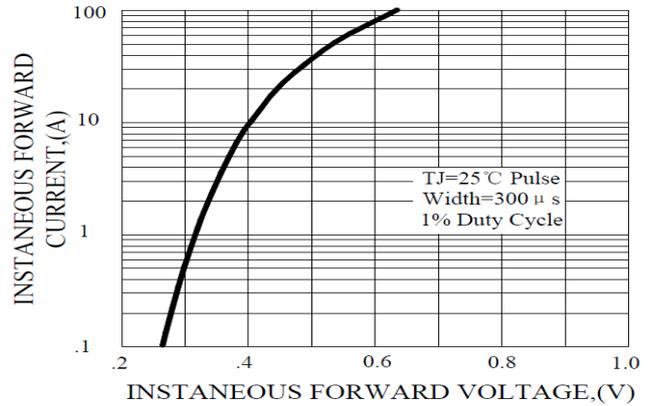


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

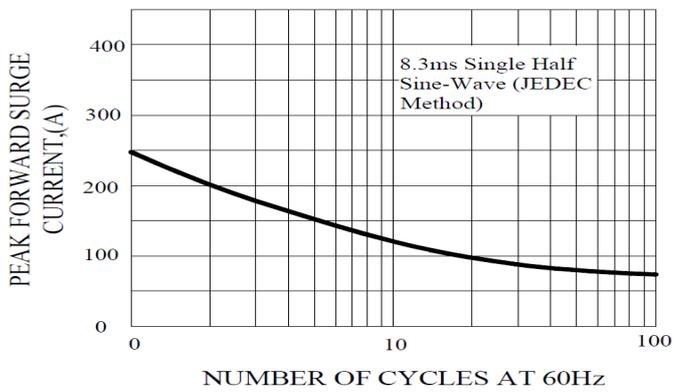


FIG.4-TYPICAL REVERSE CHARACTERISTICS

