

SUF140L

Surface Mount
ESD Capability Rectifiers
1.0 Amp 400V

Features

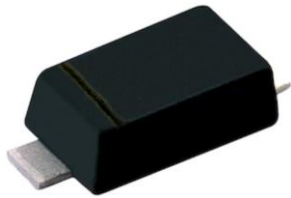
- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Small plastic SMD package.
- High surge and high current capability.
- Superfast recovery time for switching mode application.
- RoHS compliant package

Mechanical Data

- Case: Molded plastic
- Epoxy: UL94-V0 rate flame retardant
- Weight: 0.0110 g (approximately)

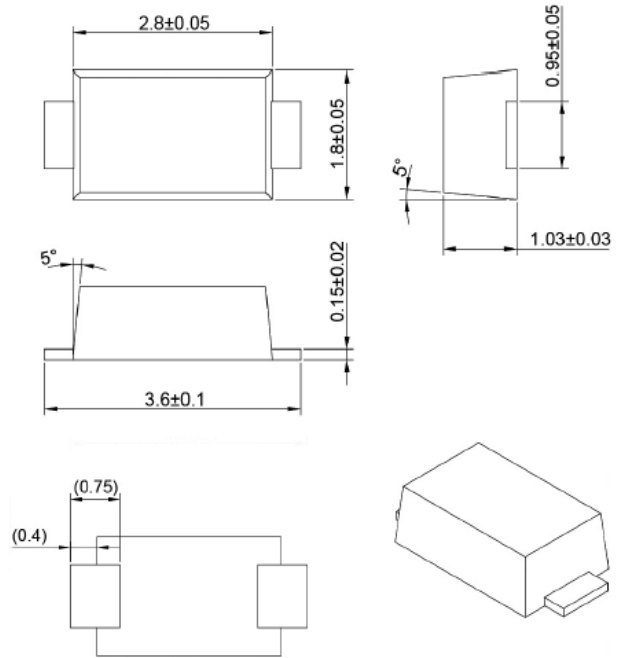
Packing & Order Information

3,000/Reel

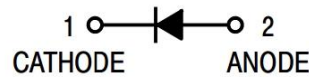


**RoHS
COMPLIANT**

SOD123-L



Graphic symbol



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	SUF140L	Unit
Maximum repetitive peak reverse voltage	VRRM	400	V
Working peak reverse voltage	VRMS	280	V
Maximum DC blocking voltage	VRWM	400	V
Maximum average forward rectified current	IF(AV)	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	25	A
1pulse/4S t=500us exponent wave		150	
Operating junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

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

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=1A, Tj=25°C at IF=0.7A, Tj=25°C	VF	1.1 --	1.25 1.1	V
Maximum reverse current per leg Tj=25°C	IR	10		u'A
at working peak reverse voltage Tj=100°C		100		u'A
Maximum Reverse Recovery Time	TRR	35		ns

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

Parameter	Symbol	Value	Unit
Typical thermal resistance	RθJA	42	°C/W

Notes:

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

Ordering Information

Device	Package	Mark	Shipping
SUF140L	SOD123-L	E6	3,000/ Tape& Reel

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■ RATINGS AND CHARACTERISTIC CURVES

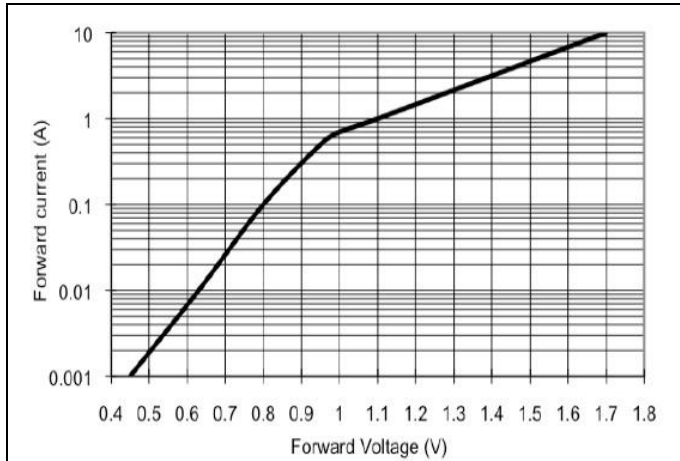


FIG.1 Typical Forward Characteristics

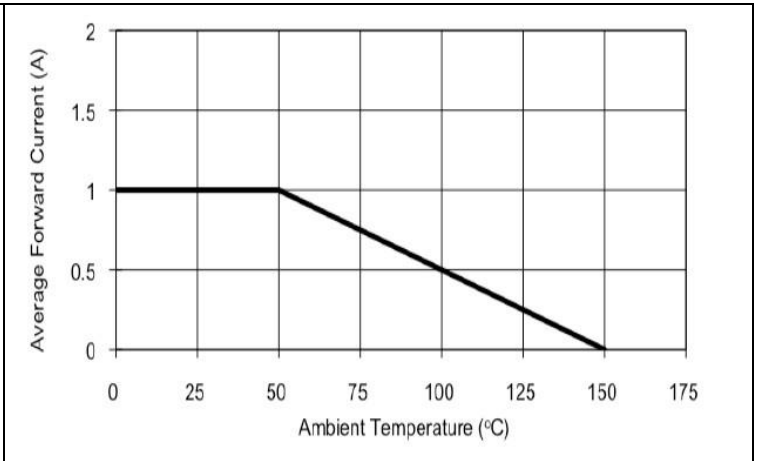


FIG.2 Maximum Forward Current Derating Curve

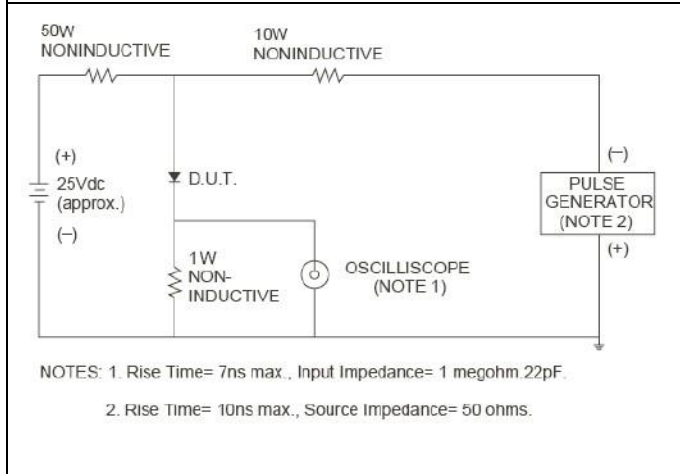


FIG.3-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

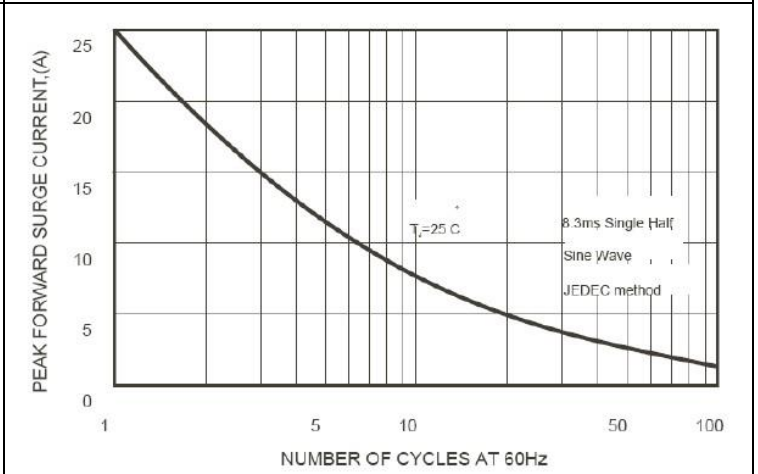


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

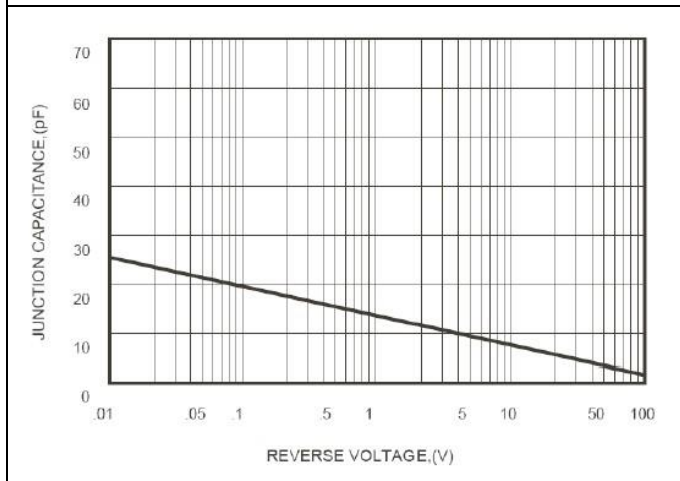


FIG.5-TYPICAL JUNCTION CAPACITANCE

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