SUF160-D2

Surface Mount Super Fast Rectifiers
1.0 Amp 600V

Features

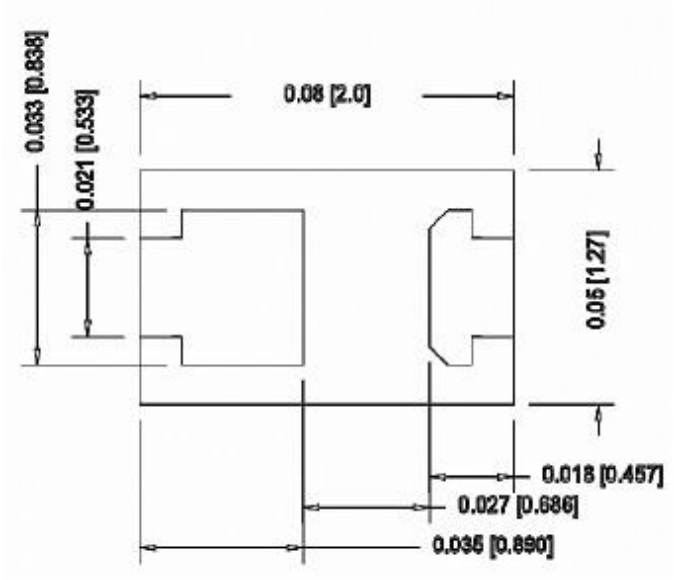
- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Small plastic SMD package.
- High surge and high current capability.
- Superfast recovery time for switching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

Mechanical Data

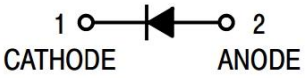
- Case: Molded plastic
- Epoxy: UL94-V0 rate flame retardant
- Weight: 0.0110 g (approximately)

Packing & Order Information

3,000/Reel



Graphic symbol



RoHS COMPLIANT

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	SUF160L	Unit
Maximum repetitive peak reverse voltage	VRRM	600	V
RMS Voltage (Max.)	VRMS	420	V
Working peak reverse voltage	VRWM	600	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
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	VF	1.5	1.7	V
Maximum reverse current per leg Tj=25°C	IR	1		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

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■RATINGS AND CHARACTERISTIC CURVES

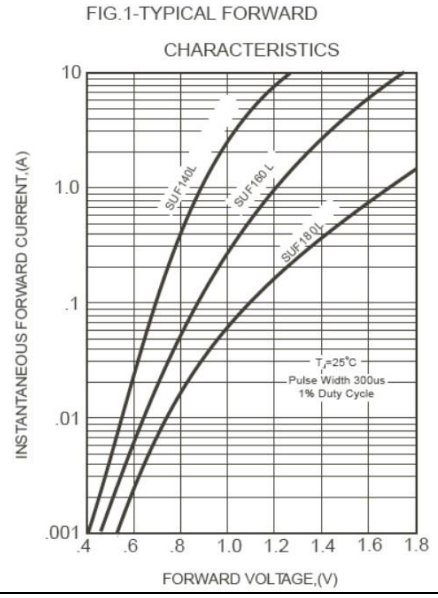

FIG.1 TYPICAL FORWARD CHARACTERISTICS

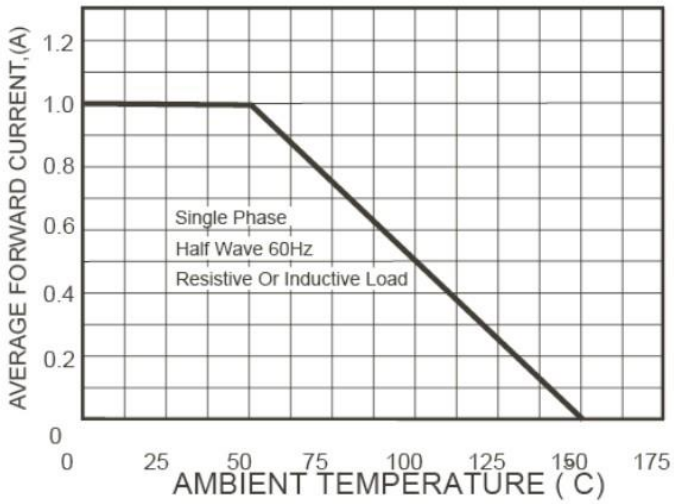

FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

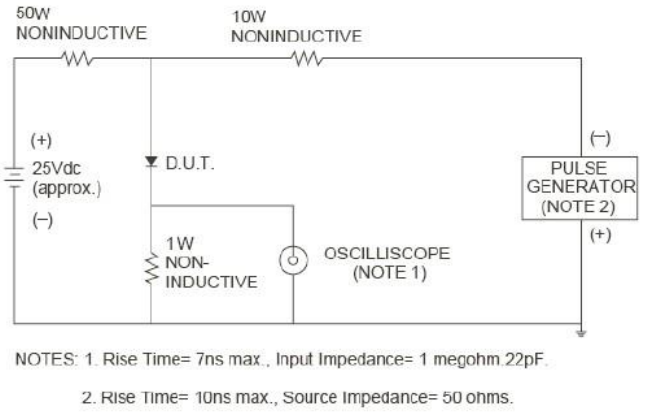

FIG.3-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

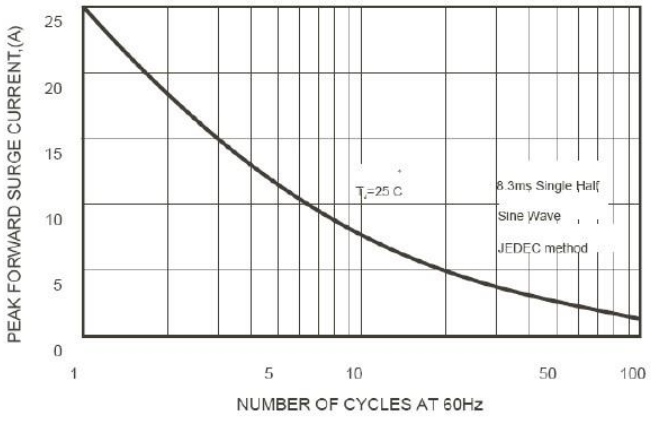

FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

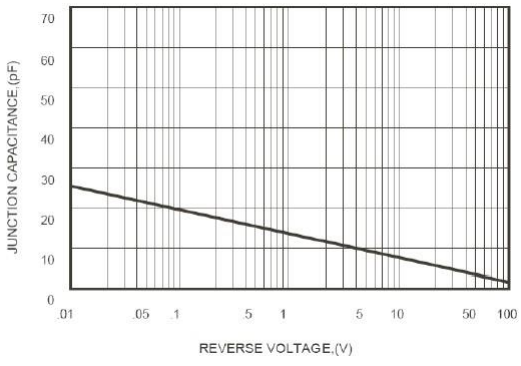

FIG.5-TYPICAL JUNCTION CAPACITANCE

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