

## 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

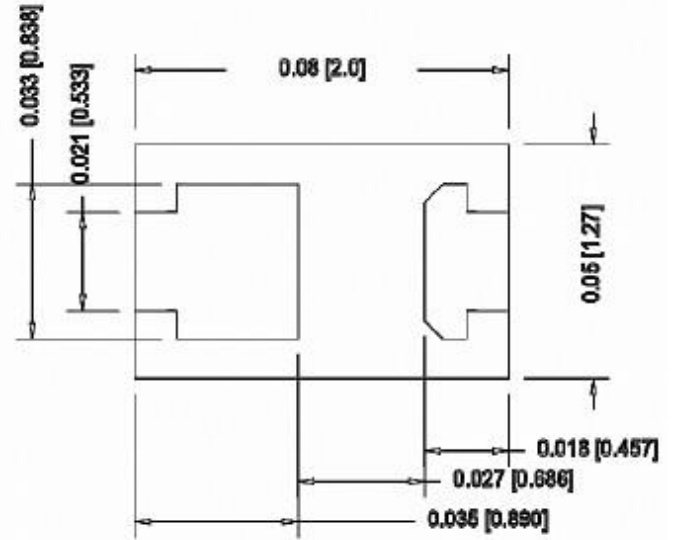
### Mechanical Data

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

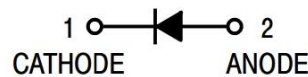
Package type : DFN 2X1.3

### 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:**

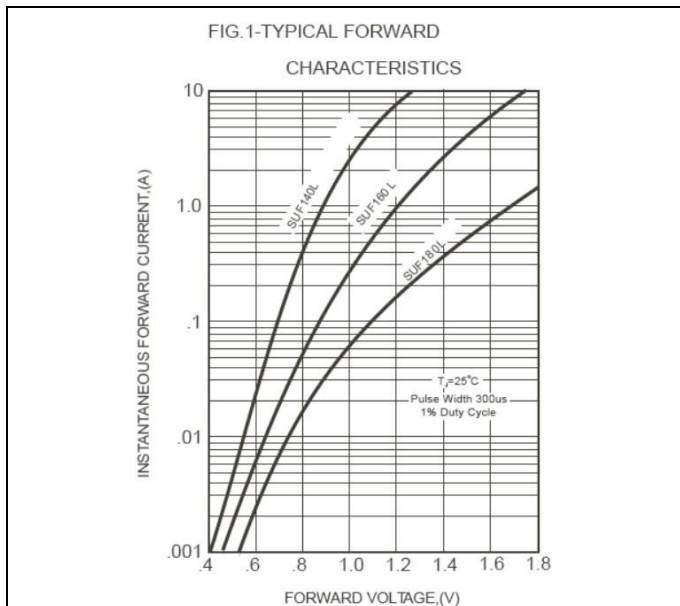
- (1) Pulse test: 300 μs pulse width, 1 % duty cycle
- (2) Pulse test: Pulse width ≤ 40 ms

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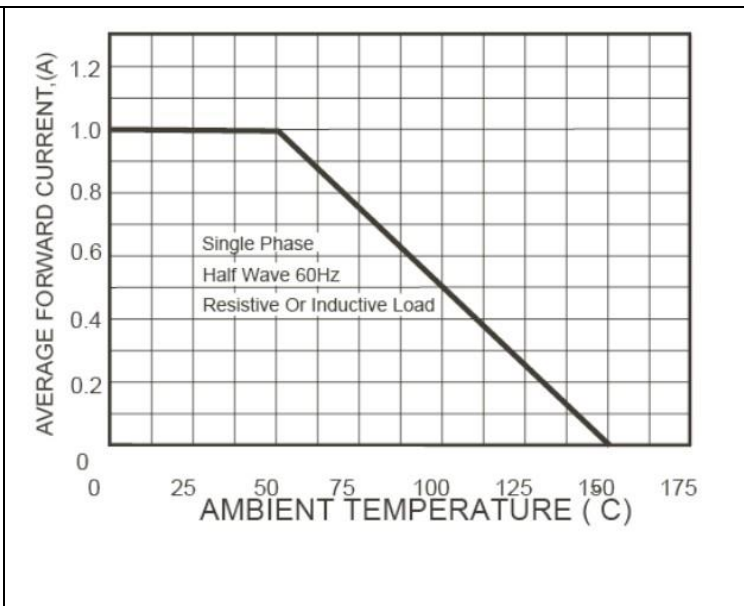
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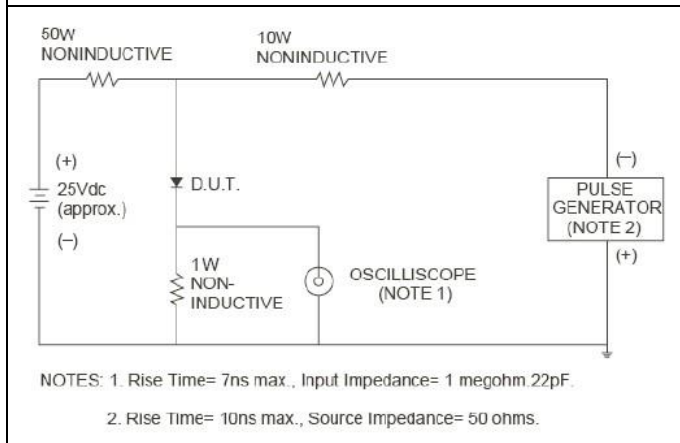
### ■ RATINGS AND CHARACTERISTIC CURVES



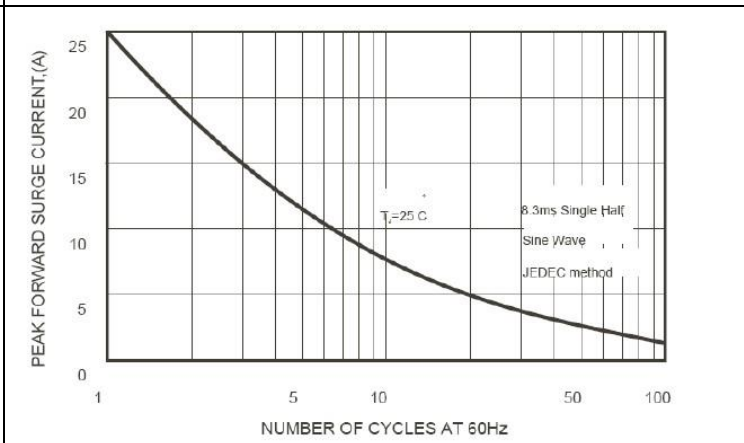
**FIG.1 TYPICAL FORWARD CHARACTERISTICS**



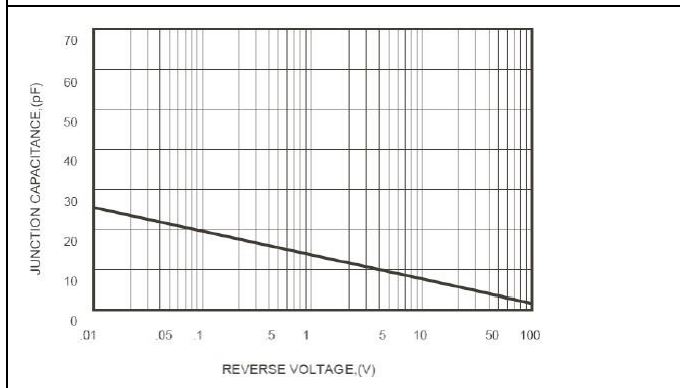
**FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE**



**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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