

SSL54FAT

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Forward Current-5.0A

Reverse Voltage-40V

FEATURES

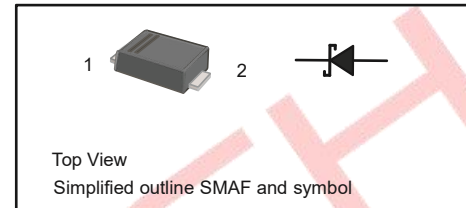
- ◆ Metal silicon junction, majority carrier conduction
- ◆ For surface mounted applications
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

MECHANICAL DATA

- ◆ Case: SMAF
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight:27mg



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derating by 20 %.

Parameter	Symbols	SSL54FAT	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current at $T_c=100^\circ\text{C}$	$I_{F(AV)}$	5	A
Peak Forward Surge Current ^(Note1)	I_{FSM}	150	A
Maximum Instantaneous Forward Voltage at 5A	V_F	0.45	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	1.0 50	mA
Typical Junction Capacitance ^(Note2)	C_j	800	pF
Typical Thermal Resistance ^(Note3)	$R_{\theta JA}$	45	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

2. Measured at 1MHz and applied reverse voltage of 4 V D.C.

3. P.C.B. mounted with 2.0" X 2.0" (5cm X 5 cm) copper pad areas.

Fig.1 Forward Current Derating Curve

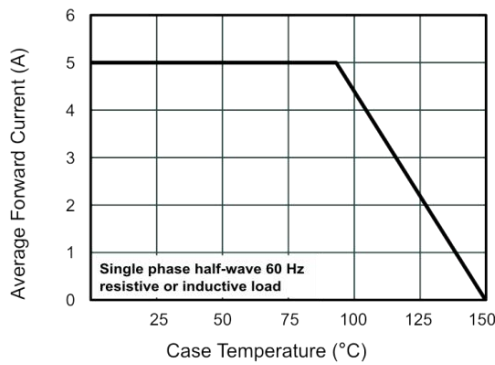


Fig.2 Typical Reverse Characteristics

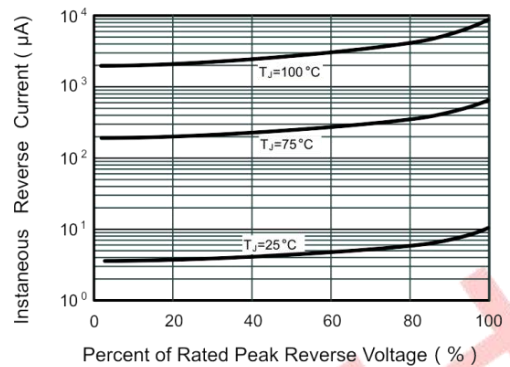


Fig.3 Typical Forward Characteristic

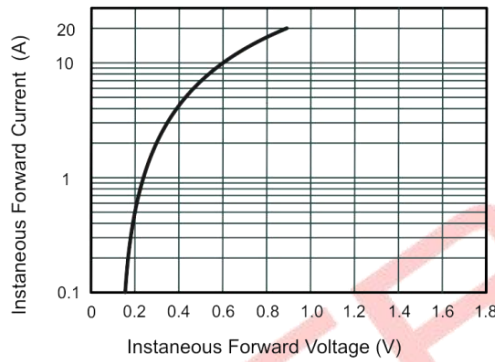


Fig.4 Typical Junction Capacitance

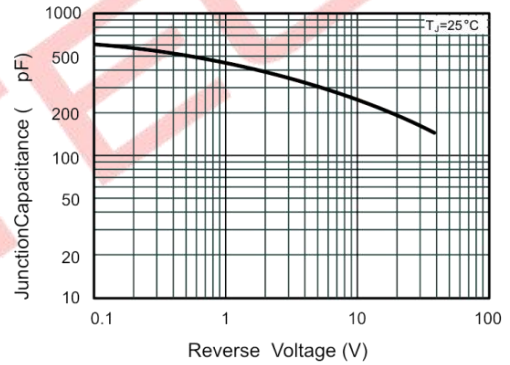


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

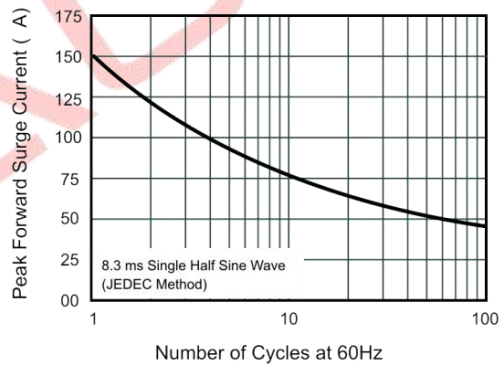
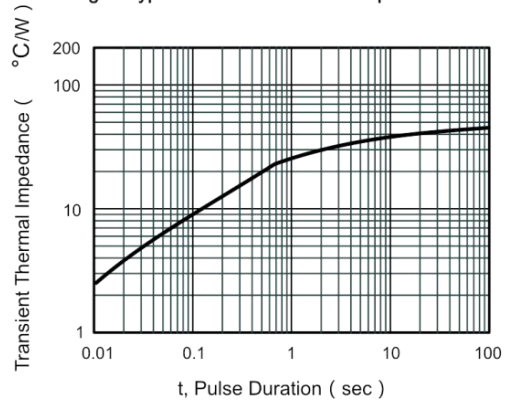


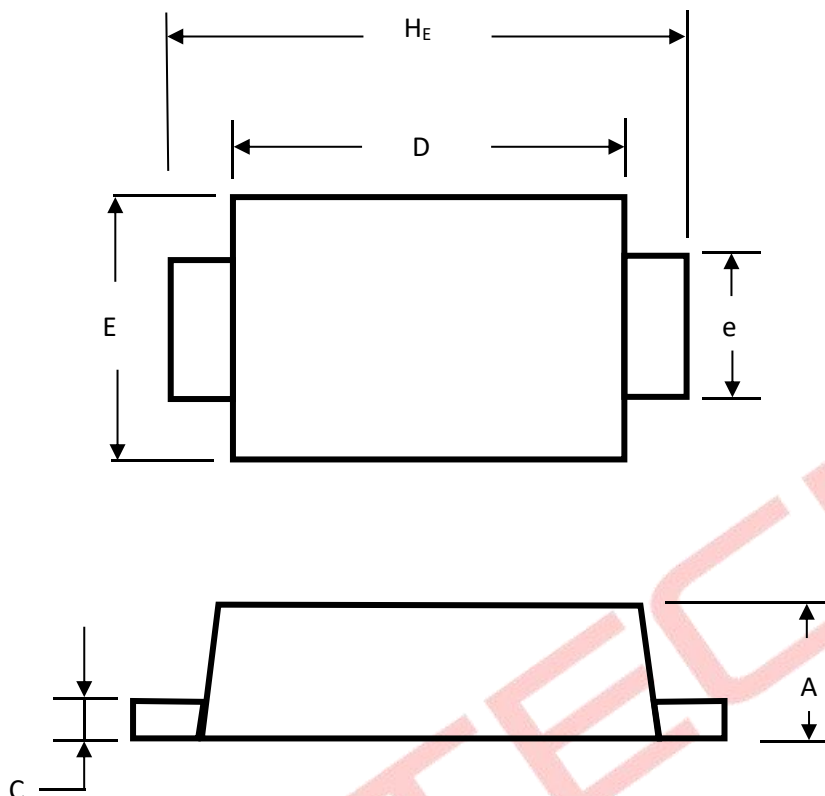
Fig.6- Typical Transient Thermal Impedance



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PACKAGE OUTLINE

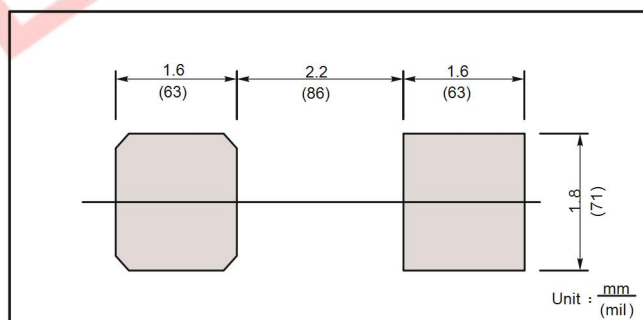
SMAF



Dimensions in millimeters

UNIT		A	C	D	E	e	g	H_E
mm	max	1.10	0.30	3.70	2.80	1.60	1.20	4.90
	min	0.90	0.18	3.30	2.40	1.30	0.80	4.40

THE RECOMMENDED MOUNTING PAD SIZE



ORDERING INFORMATION

Device	Package	Shipping
SSL54FAT	SMAF	3,000/Tape & Reel (7 inches)