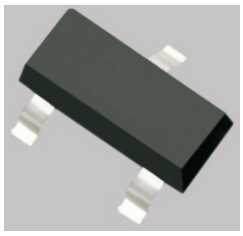
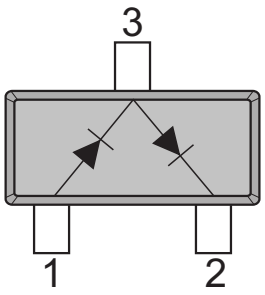
Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 700 V

Forward Current - 0.5 A

SOT-23





FEATURES

- For surface mounted applications
- Low profile package
- Easy to pick and place
- Super fast reverse recovery time

MECHANICAL DATA

- Case: SOT-23
- Approx. Weight: 0.009g / 0.0003oz

Maximum Ratings and Electrical characteristics
Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	STU0570W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	700	V
Maximum RMS voltage	V_{RMS}	560	V
Maximum DC Blocking Voltage	V_{DC}	700	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	8	A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.5	V
Reverse breakdown voltage I_R=100μA	V_{BR}	700	V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage V_R =650V	I_R	0.2	μA
Typical Junction Capacitance NOTE1	C_j	5	pF
Maximum Reverse Recovery Time NOTE2	t_{rr}	60	ns
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

Note: 1. Measured at 1MHz and applied reverse voltage of 0 V D.C
2.Measured with IF = IR = 10 mA, Irr = 0.1 X IR

Fig.1 Forward Current Derating Curve

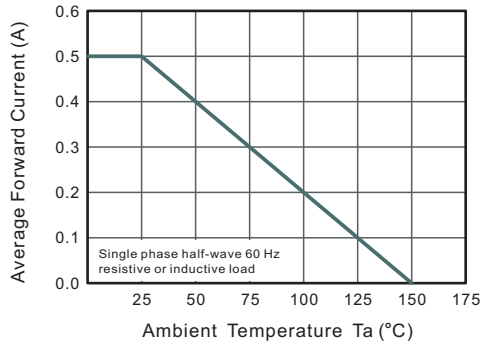


Fig.2 Typical Instaneous Reverse Characteristics

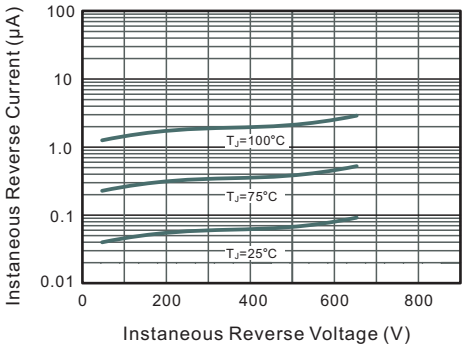


Fig.3 Typical Forward Characteristic

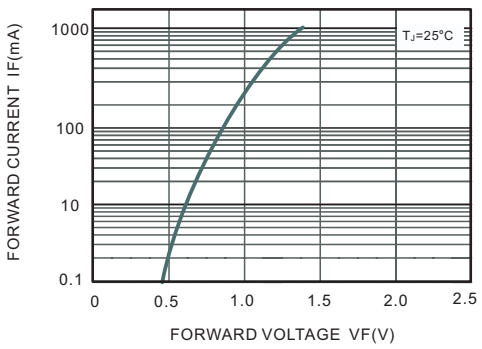
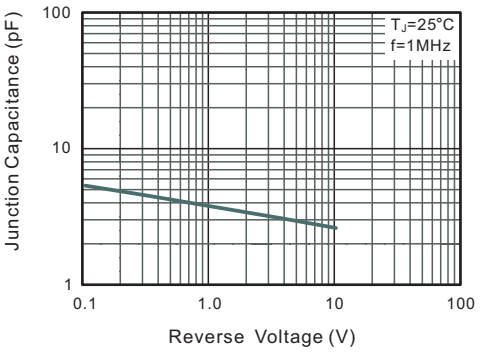
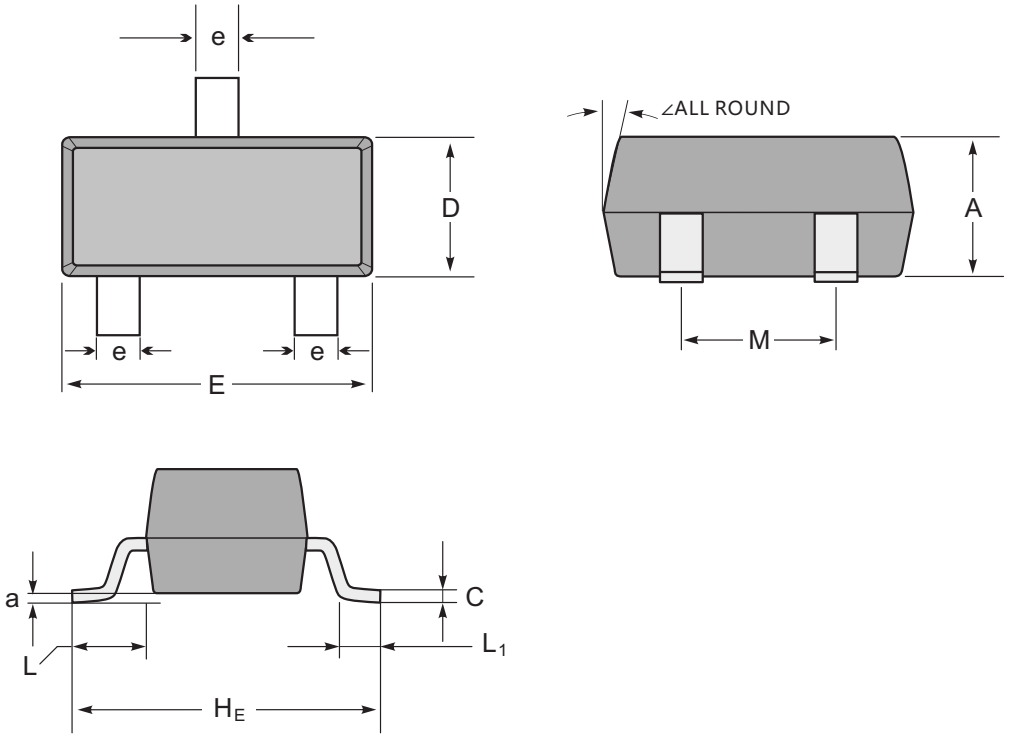


Fig.4 Typical Junction Capacitance



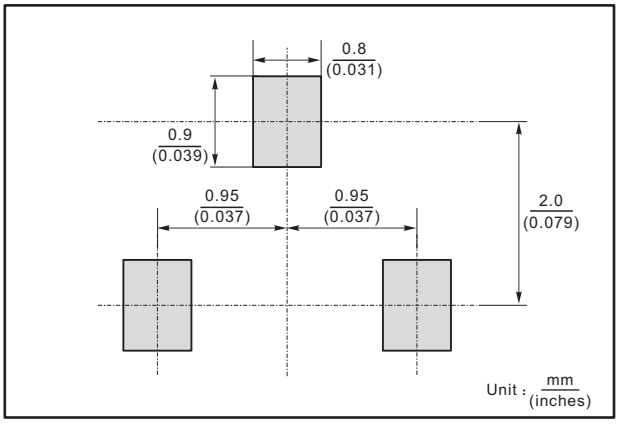
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	H_E	e	M	L	L_1	a	∠
mm	max	1.1	0.20	1.4	3.0	2.6	0.6	1.95	0.55 (ref)	0.36 (ref)	0.15	12°
	min	0.9	0.08	1.2	2.8	2.2	0.35	1.7			0.0	
mil	max	43	7.9	55	118	102	24	77	22 (ref)	14 (ref)	6	
	min	35	3.1	47	110	87	13	67			0.0	

The recommended mounting pad size



Marking

Type number	Marking code
STU0570W	U7