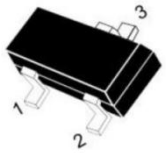
SSCSBAW56S6 /SSCSBAV70S6/ SSCSBAV99S6

Fast Switching Diode

● Features

- ✧ Fast Switching Speed
- ✧ Ultra-Small Surface Mount Package
- ✧ Low Reverse Leakage Current
- ✧ Ideal for Battery Powered Portable Applications
- ✧ RoHS Compliant/Green EMC
- ✧ Moisture Sensitivity: Level 3 per J-STD-020

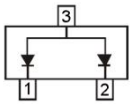
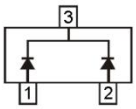
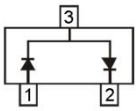
● PIN configuration



SOT-23

✧ Applications

- ✧ High speed switching for detection
- ✧ Battery Powered Portable
- ✧ Mobile phones, laptops and other electronic devices

SSCSBAW56S6:	SSCSBAV70S6:	SSCSBAV99S6:
 Marking: A1	 Marking: A4	 Marking: A7

Circuit Diagram

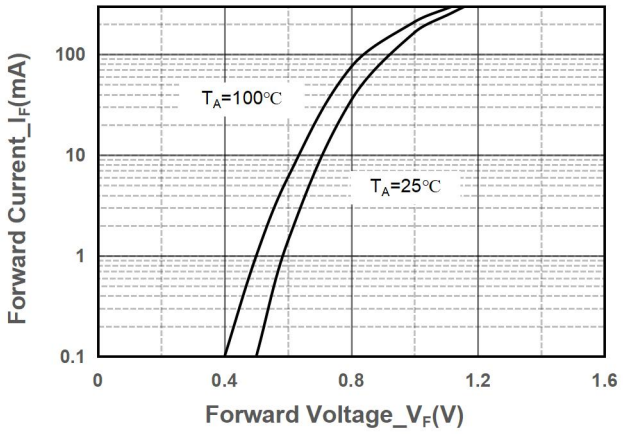
● Absolute maximum rating @T_A=25℃

Parameter	Symbol	Value	Unit
Reverse Voltage (DC)	V_R	100	V
Average Rectified Forward Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	225	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	556	℃/W
Junction Temperature	T_J	125	℃
Storage Temperature	T_{STG}	-55 ~ +150	℃

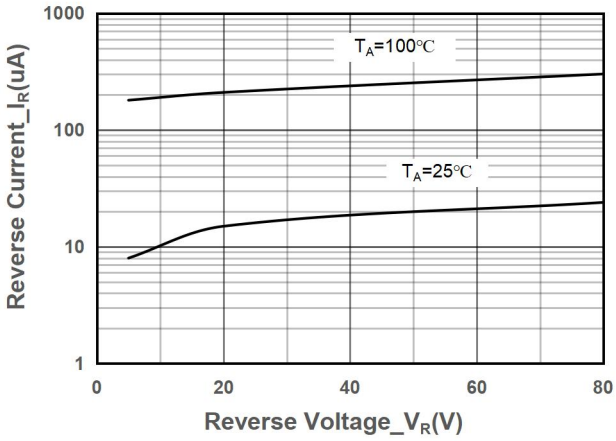
Electrical Characteristics @T_A = 25℃

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V_R	I_R = 100uA	100			V
Forward Voltage	V_F	I_F =1mA			0.715	V
		I_F = 10mA			0.855	V
		I_F = 50mA			1	V
		I_F = 150mA			1.25	V
Reverse Current	I_R	V_R = 70V			2.5	μA
Capacitance between terminals	C_T	V_R = 0V, f = 1MHz			1.5	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA,R_L=100Ω,I_{rr}=0.1I_R			6	ns

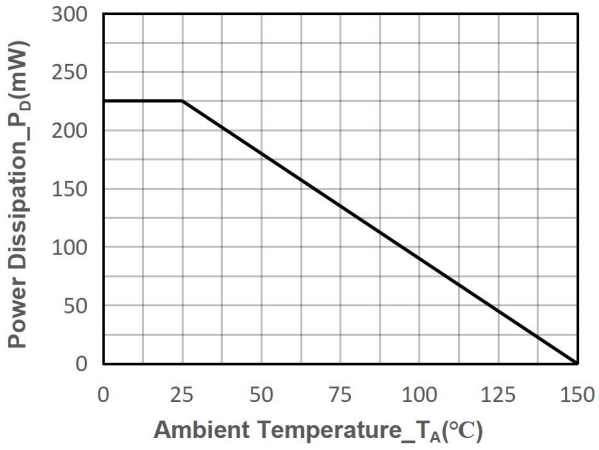
Typical Performance Characteristics



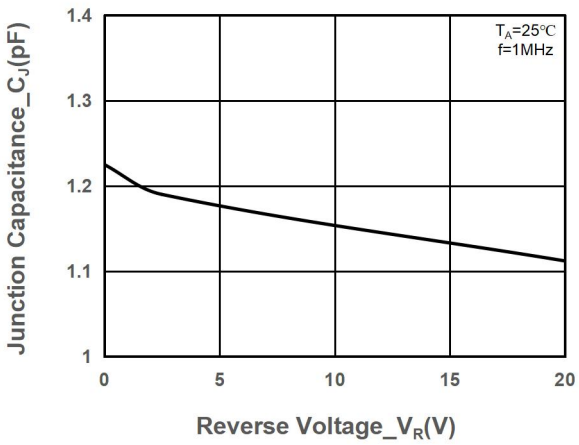
Forward Current vs. Forward Voltage



Reverse Current vs. Reverse Voltage



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage

Package Information

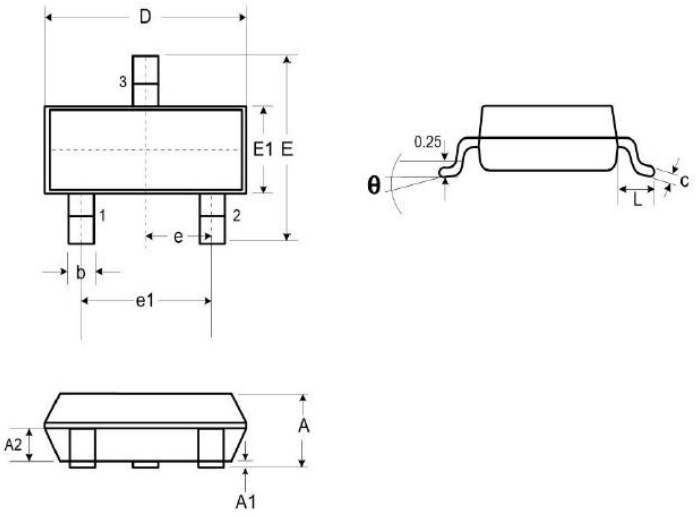
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCSBAW56S6	SOT-23	A1	3000	7 Inch
SSCSBAV70S6	SOT-23	A4	3000	7 Inch
SSCSBAV99S6	SOT-23	A7	3000	7 Inch

Mechanical Data

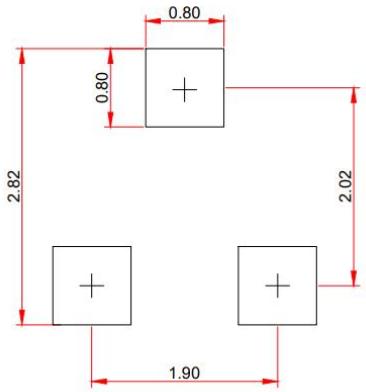
Case: SOT-23

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters		
	Min.	Typ.	Max.
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.51
c	0.08	-	0.18
D	2.80	2.90	3.04
E	2.10	2.37	2.64
E1	1.20	1.30	1.40
e	0.95		
e1	1.90		
L	0.40	0.50	0.60
L1	0.55		
N	3		
θ	0°	-	8°

Recommended Pad outline (Unit: mm)



DISCLAIMER

SSCSEMI RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. SSCSEMI DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICIENCE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

THE GRAPHS PROVIDED IN THIS DOCUMENT ARE STATISTICAL SUMMARIES BASED ON A LIMITED NUMBER OF SAMPLES AND ARE PROVIDED FOR INFORMATIONAL PURPOSE ONLY. THE PERFORMANCE CHARACTERISTICS LISTED IN THEM ARE NOT TESTED OR GUARANTEED. IN SOME GRAPHS, THE DATA PRESENTED MAY BE OUTSIDE THE SPECIFIED OPERATING RANGE (E.G. OUTSIDE SPECIFIED POWER SUPPLY RANGE) AND THEREFORE OUTSIDE THE WARRANTED RANGE.

OUR PRODUCT SPECIFICATIONS ARE ONLY VALID IF OBTAINED THROUGH THE COMPANY'S OFFICIAL WEBSITE, CRM SYSTEM, OR OUR SALES PERSONNEL CHANNELS. IF CHANGES OR SPECIAL VERSIONS ARE INVOLVED, THEY MUST BE STAMPED WITH A QUALITY SEAL AND MARKED WITH A SPECIAL VERSION NUMBER TO BE VALID.