AUK Semiconductor

SUD494J

Silicon epitaxial planar Diode

Features

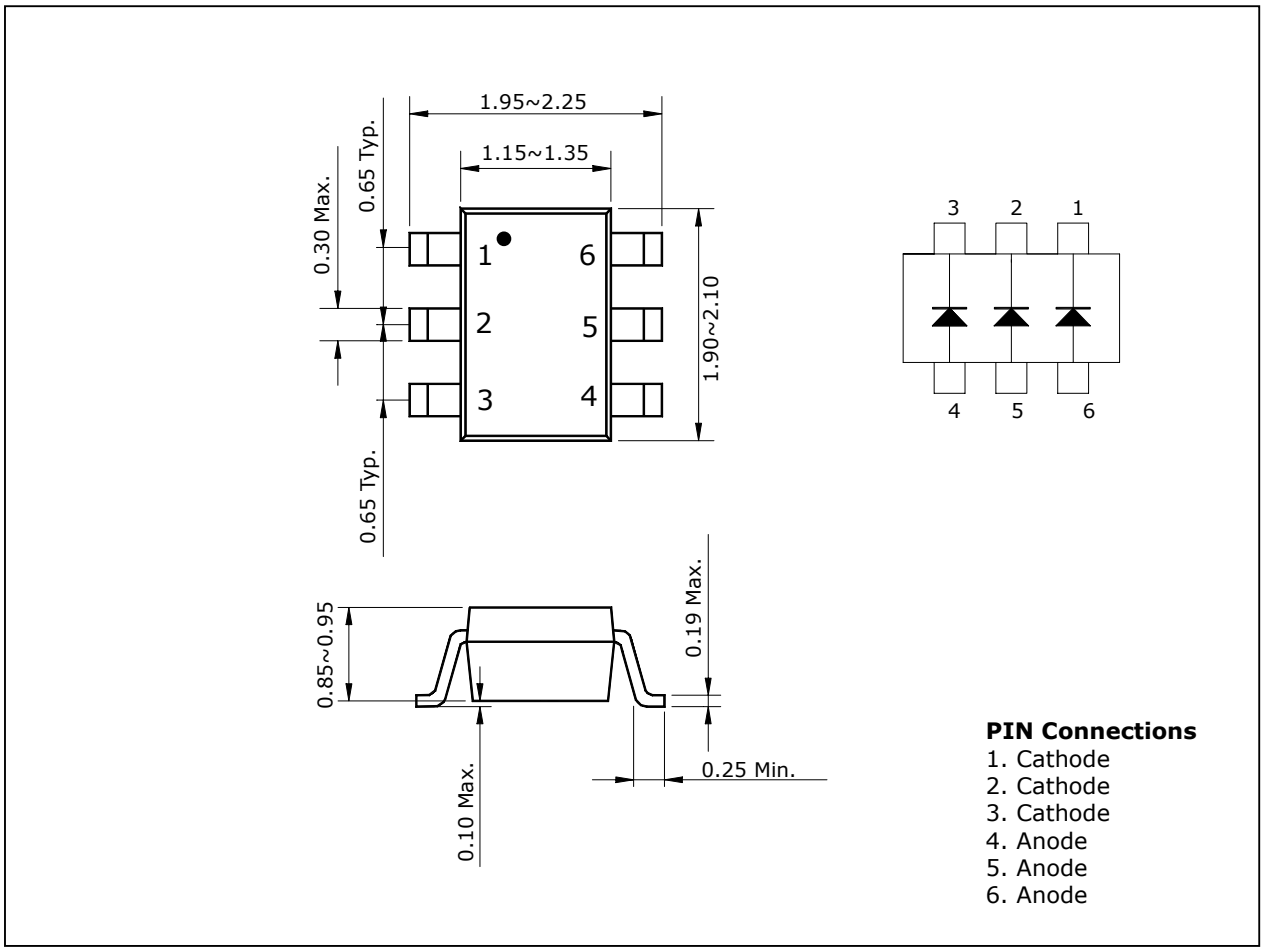
- Ultra high speed
- Fast reverse recovery time : t_{rr}=1.6ns(Typ.)
- Small total capacitance : C_T=2.2pF(Typ.)
- Three SDS914 chips in SOT-363 package

Ordering Information

Type NO.	Marking	Package Code
SUD494J	EX	SOT-363

Outline Dimensions

unit : mm



PIN Connections

1. Cathode
2. Cathode
3. Cathode
4. Anode
5. Anode
6. Anode

Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Maximum(peak) reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Maximum(peak) forward current	I_{FM}	300	mA
Average forward current	I_O	100	mA
Surge current(10ms)	I_{FSM}	2	A
Power dissipation	P_D	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ 150	°C

Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	$V_{F(1)}$	I_F=1mA	-	0.6	-	V
	$V_{F(2)}$	I_F=10mA	-	0.7	-	
	$V_{F(3)}$	I_F=100mA	-	0.9	1.2	
Reverse current	I_R	V_R=80V	-	-	0.5	μA
Total capacitance	C_T	V_R=0, f=1MHz	-	2.2	4.0	pF
Reverse recovery time	t_{rr}	I_F=10mA	-	1.6	4.0	ns

Electrical Characteristic Curves

Fig. 1 I_F-V_F

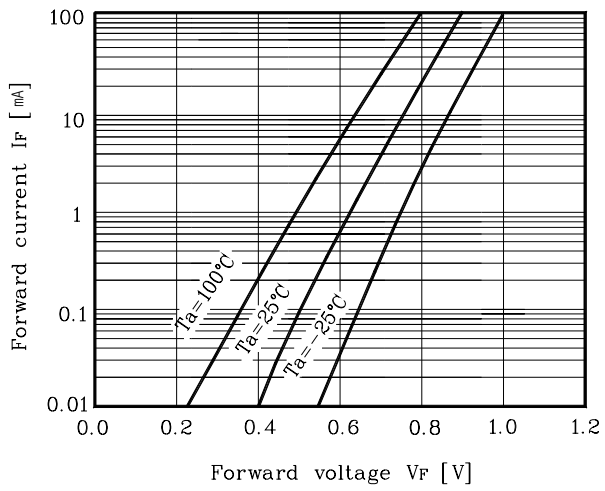


Fig. 2 I_R-V_R

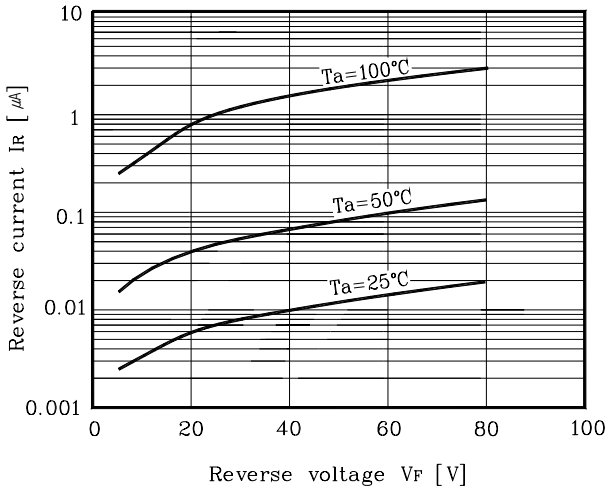


Fig. 3 C_T-V_R

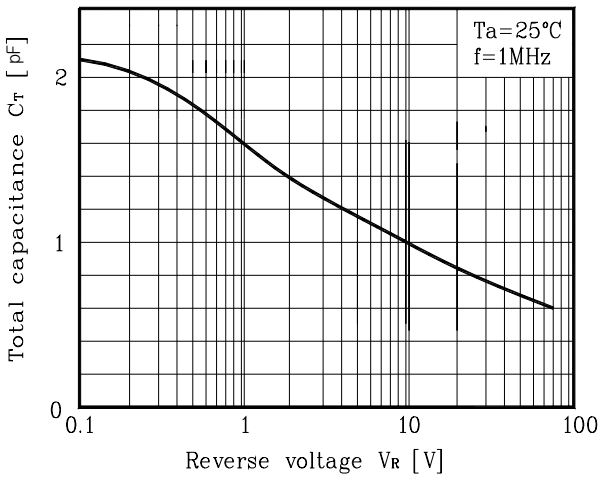


Fig. 4 trr-I_F

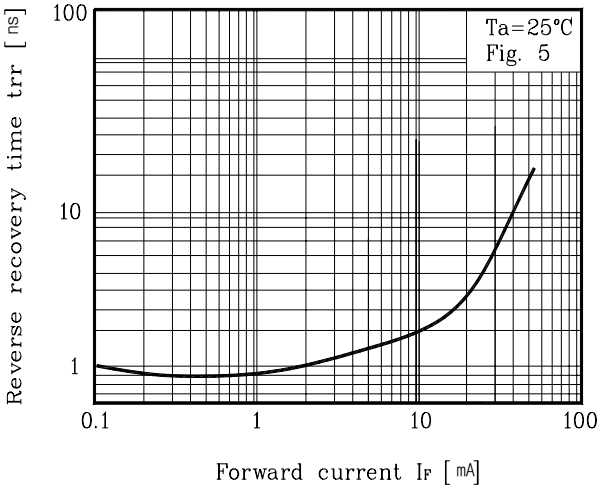
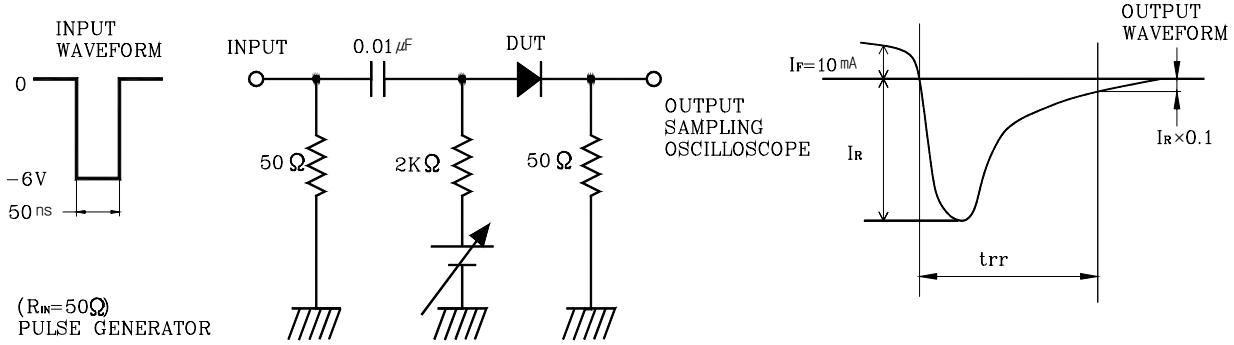


Fig. 5 Reverse recovery time(trr) test circuit



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