AUK Semiconductor

SDS2838E

Switching Diode

Features

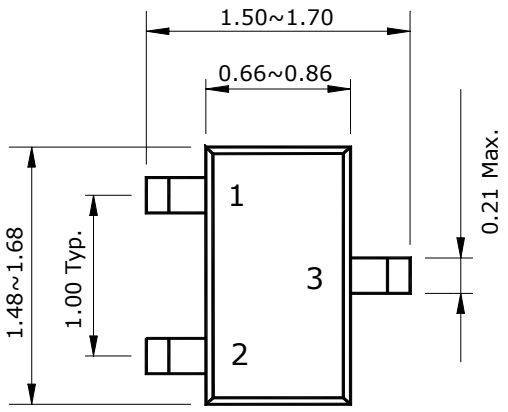
- SMD package : SOT-523
- Low forward voltage : V_F=0.9V(Typ.)
- Fast reverse recovery time : t_{rr}=1.6ns(Typ.)
- Small total capacitance : C_T=2.2pF(Typ.)

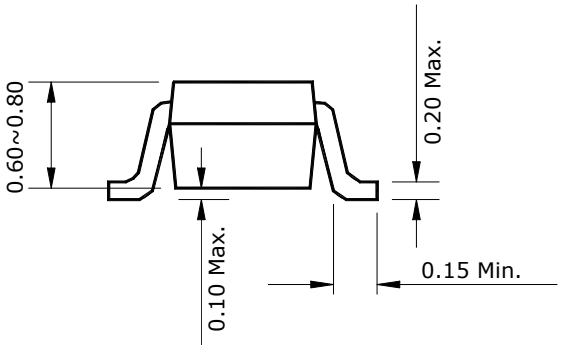
Ordering Information

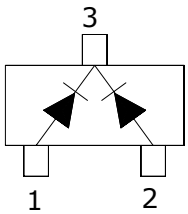
Type No.	Marking	Package Code
SDS2838E	P3	SOT-523

Outline Dimensions

unit : mm







PIN Connections
1. Anode
2. Anode
3. Cathode, Cathode

Absolute maximum ratings

Ta=25°C

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

* : Unit ratings. Total rating = Unit rating ×1.5

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 (Fig. 5)	-	1.6	4.0	ns

Electrical Characteristic Curves

Fig. 1 I_F-V_F

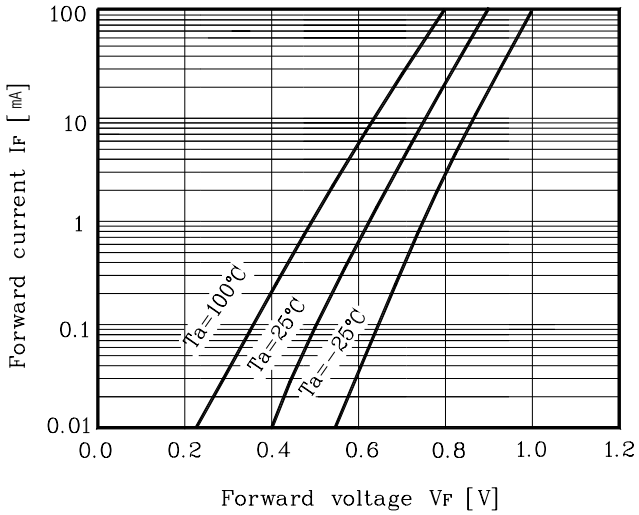


Fig. 2 I_R-V_R

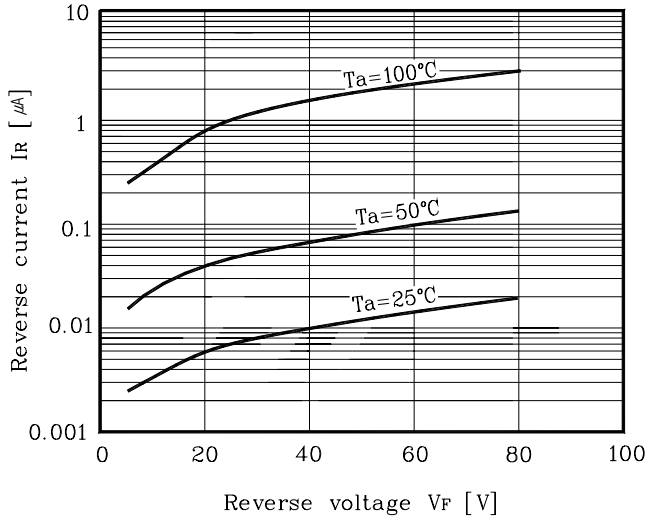


Fig. 3 C_T-V_R

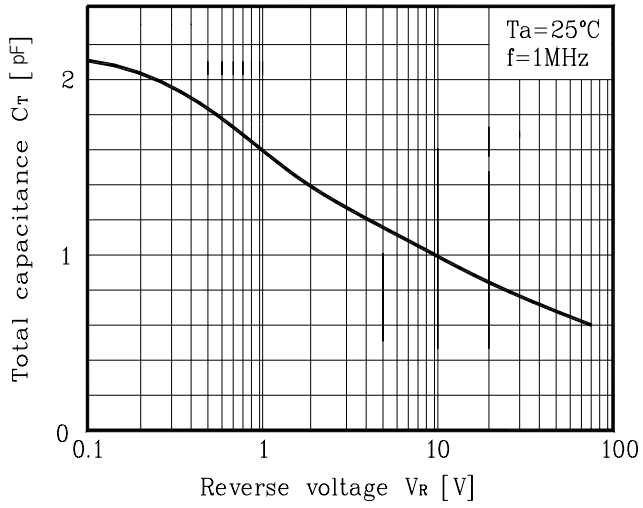


Fig. 4 trr-I_F

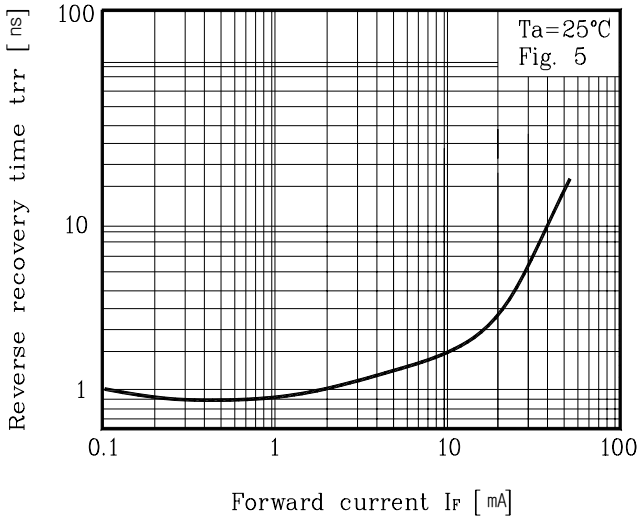
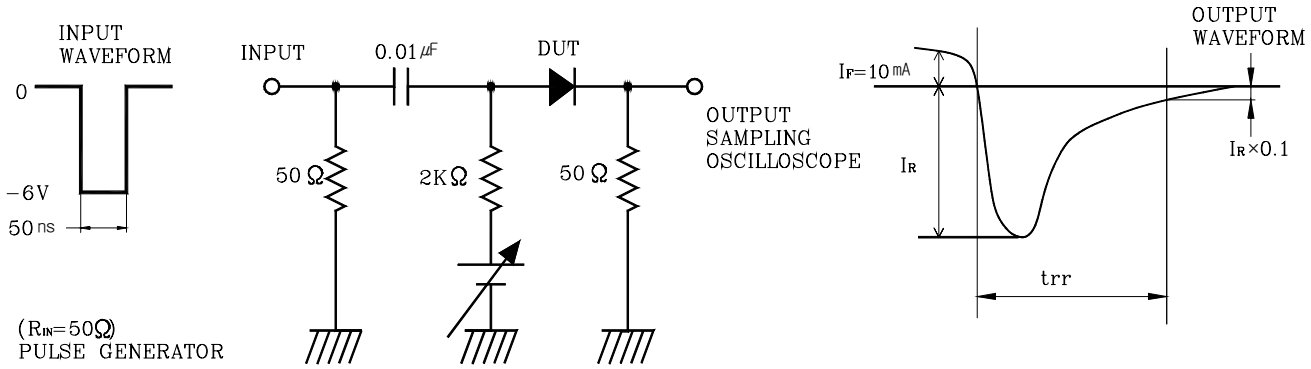


Fig. 5 Reverse recovery time(trr) test circuit



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