

Features

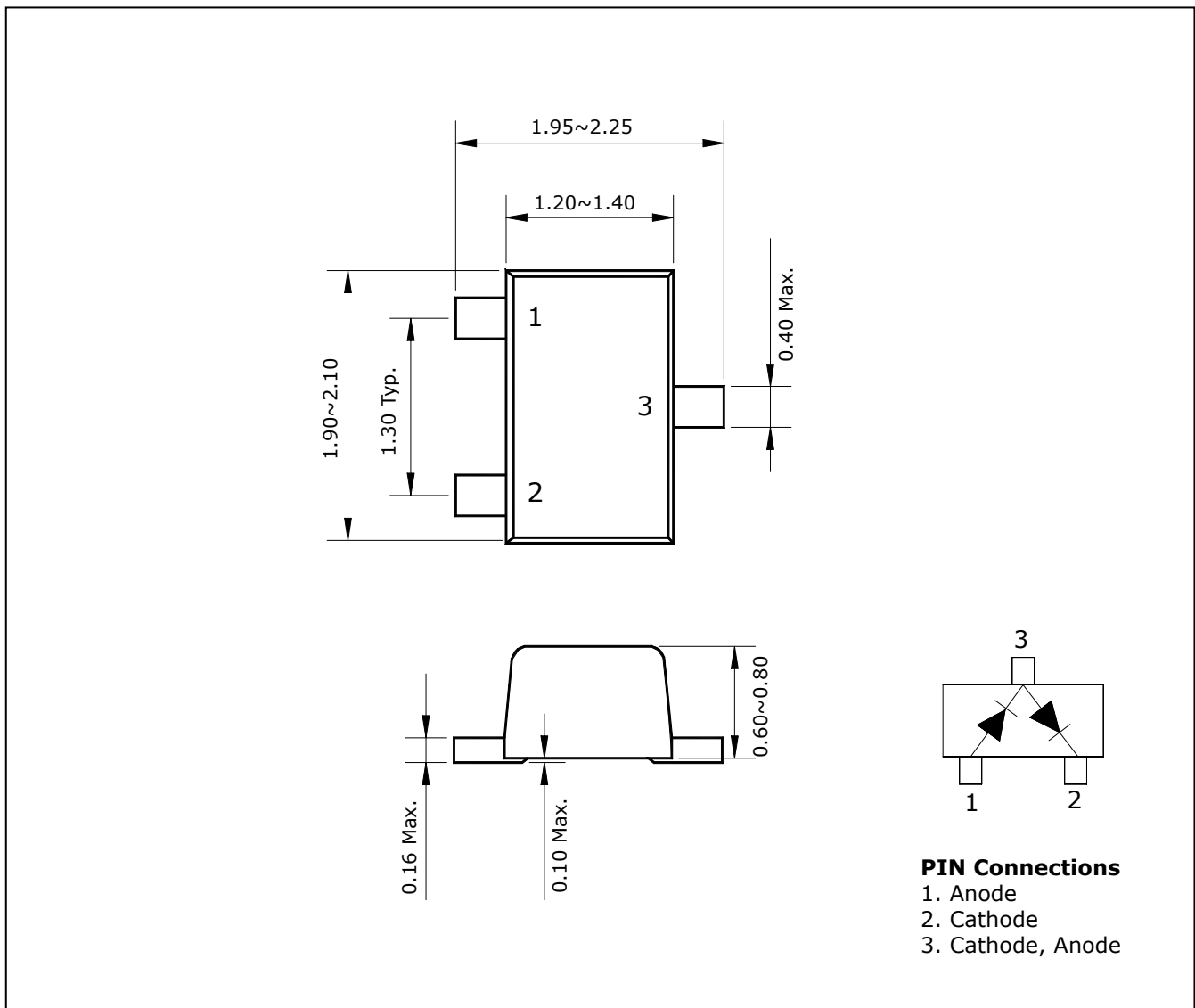
- SMD package : SOT-323F
- Low forward voltage : $V_F=0.9V$ (Typ.)
- Fast reverse recovery time : $t_{rr}=1.6\text{ ns}$ (Typ.)
- Small total capacitance : $C_T=2.2\text{ pF}$ (Typ.)

Ordering Information

Type No.	Marking	Package Code
SDS142WMF	5C	SOT-323F

Outline Dimensions

unit : mm



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	$V_{F(1)}$	$I_F=1\text{ mA}$	-	0.6	-	V
	$V_{F(2)}$	$I_F=10\text{ mA}$	-	0.7	-	
	$V_{F(3)}$	$I_F=100\text{ mA}$	-	0.9	1.2	
Reverse current	I_R	$V_R=80V$	-	-	0.5	μA
Total capacitance	C_T	$V_R=0, f=1\text{ MHz}$	-	2.2	4.0	pF
Reverse recovery time	t_{rr}	$I_F=10\text{ mA}$ (Fig. 5)	-	1.6	4.0	ns

Electrical Characteristic Curves

Fig. 1 I_F - V_F

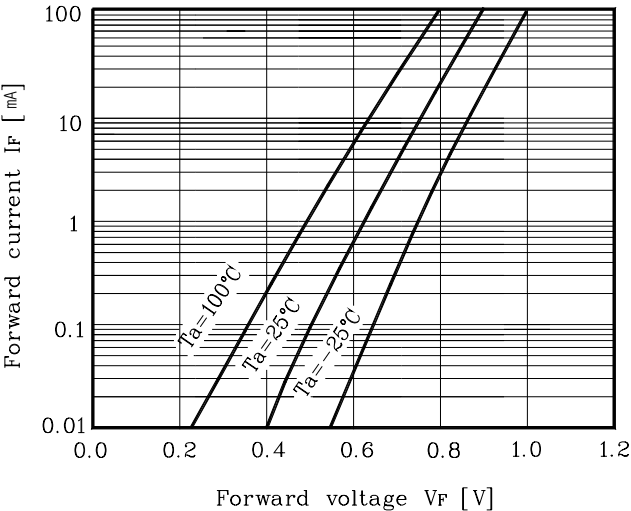


Fig. 2 I_R - V_R

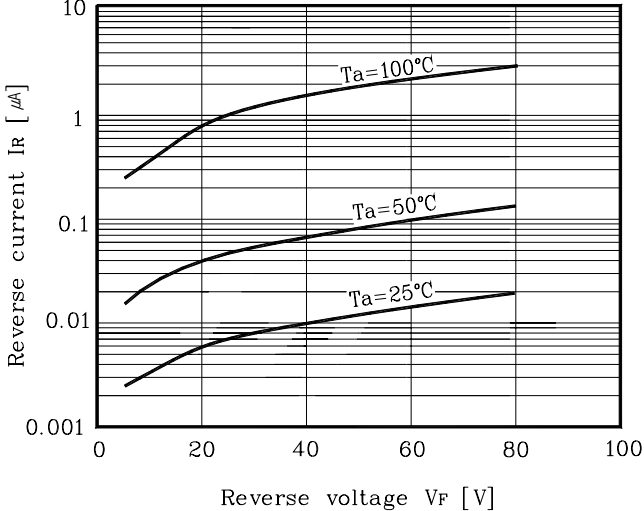


Fig. 3 C_T - V_R

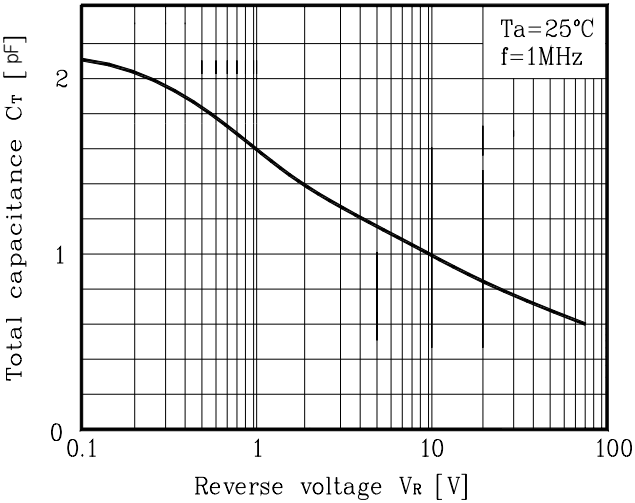


Fig. 4 t_{rr} - I_F

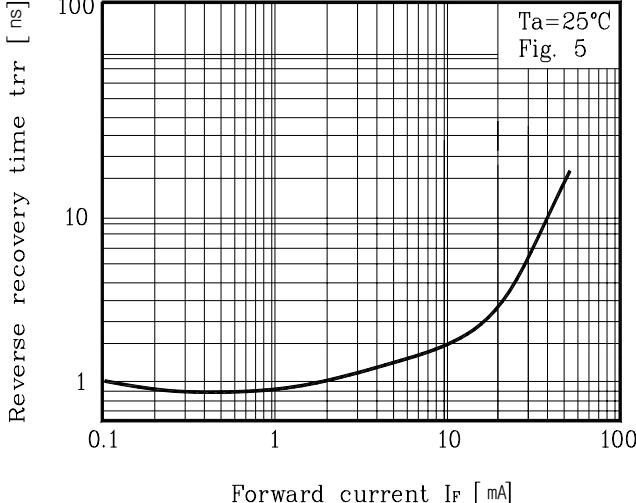
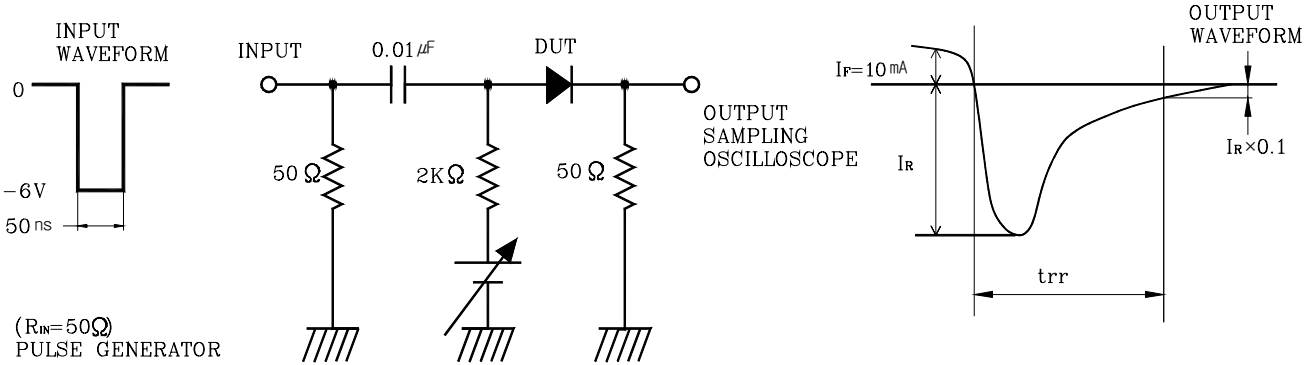


Fig. 5 Reverse recovery time(t_{rr}) test circuit



The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..

Specifications mentioned in this publication are subject to change without notice.