

**Features**

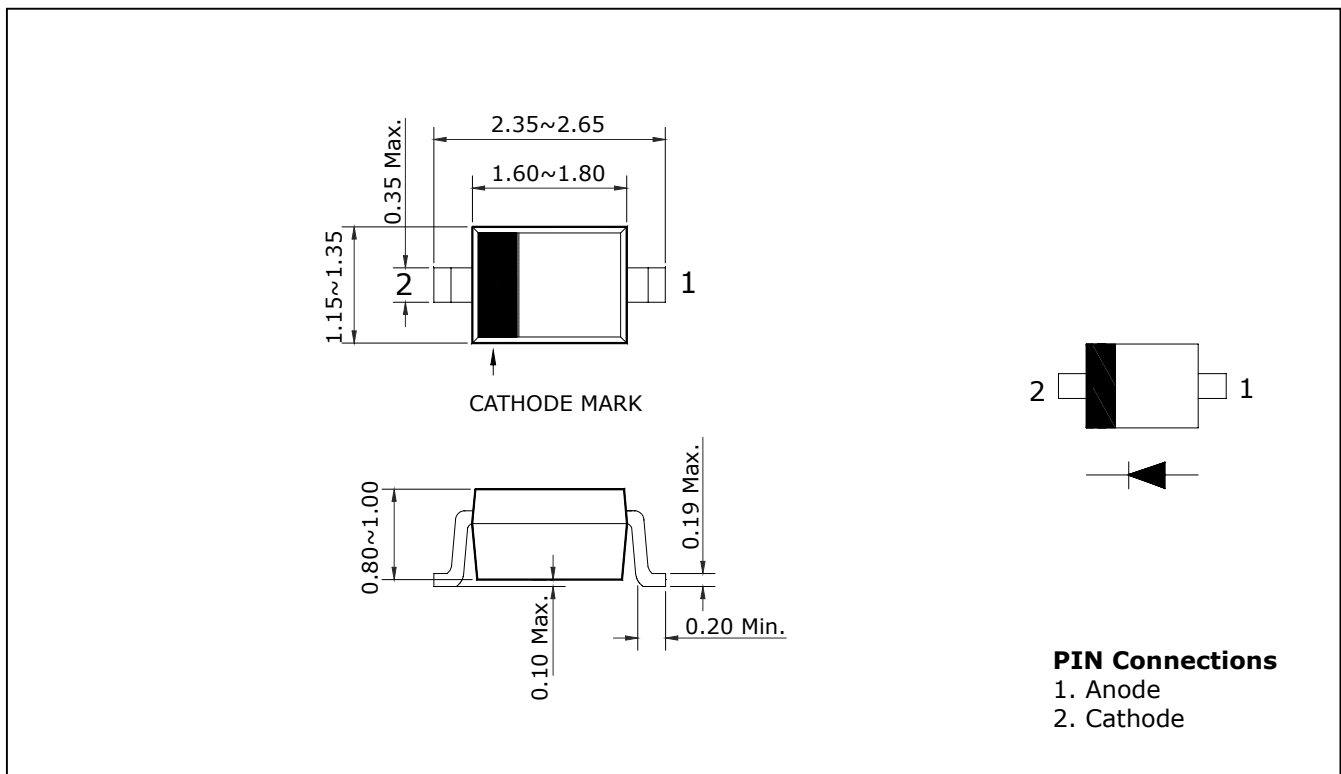
- Ultra high speed switching application
- Low forward voltage :  $V_F=0.9V$ (Typ.)
- Fast reverse recovery time :  $t_{rr}=1.6\text{ ns}$ (Typ.)
- Small total capacitance :  $C_T=2.2\text{ pF}$ (Typ.)

**Ordering Information**

Type No.	Marking	Package Code
SDS511	S1	SOD-323

**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

**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	$I_R$	$V_R=80\text{V}$	-	-	0.5	$\mu\text{A}$
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  $I_F-V_F$

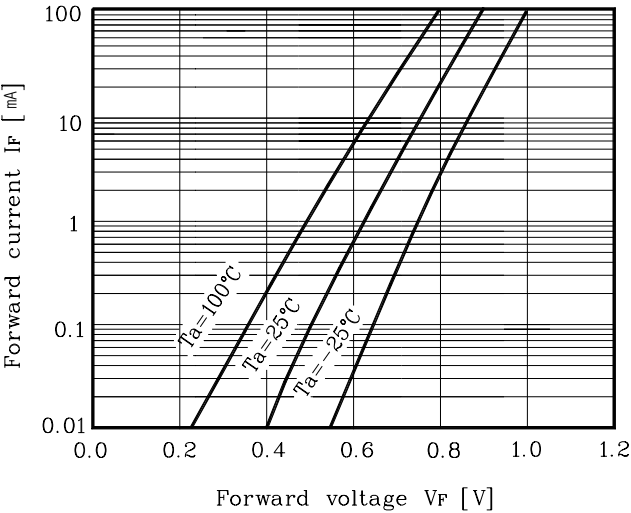


Fig. 2  $I_R-V_R$

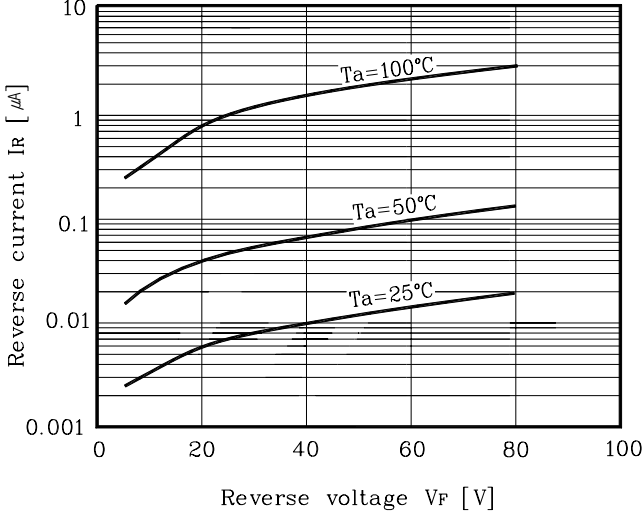


Fig. 3  $C_T-V_R$

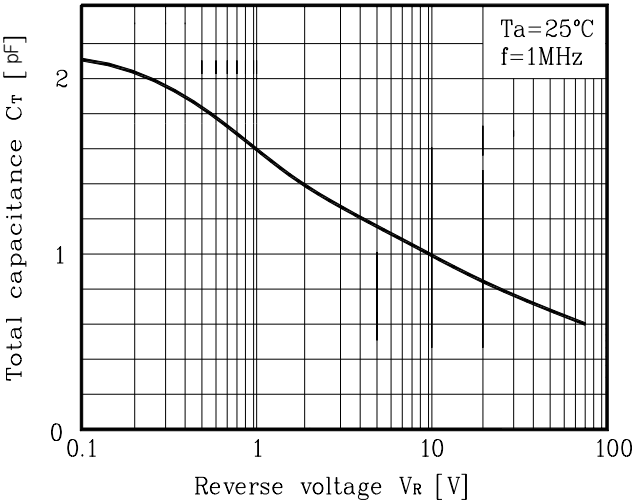


Fig. 4  $t_{rr}-I_F$

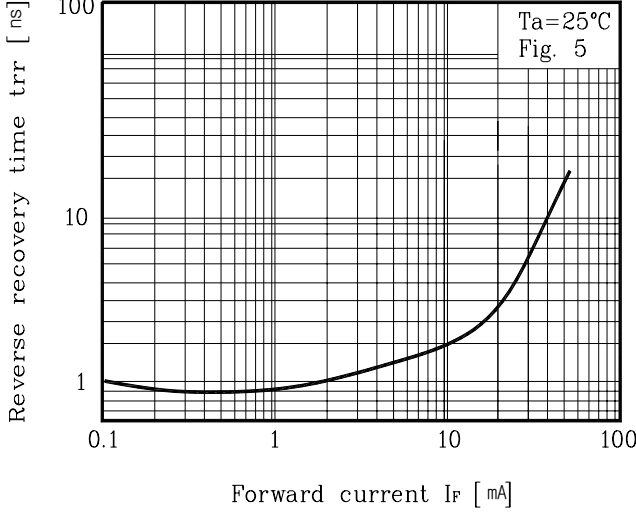
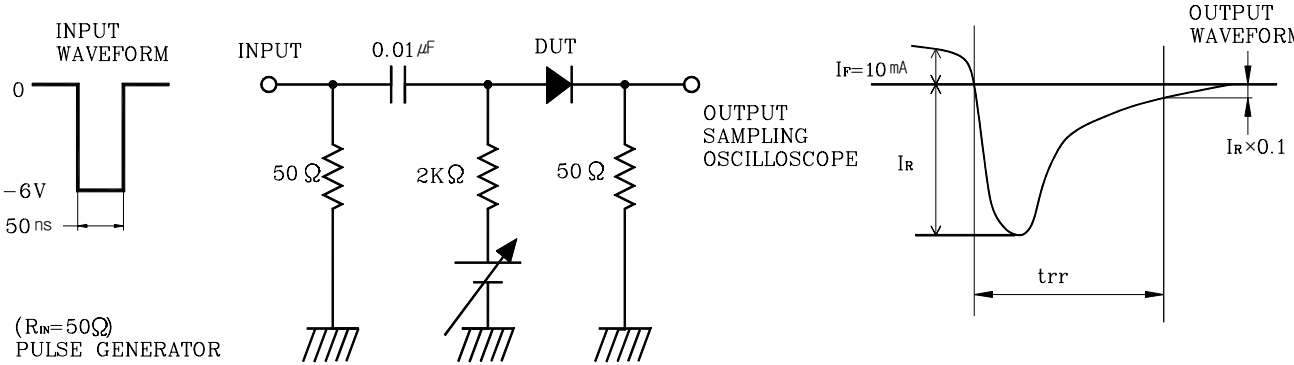


Fig. 5 Reverse recovery time( $t_{rr}$ ) test circuit



**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.**