

### ULTRA HIGH SPEED SWITCHING APPLICATION.

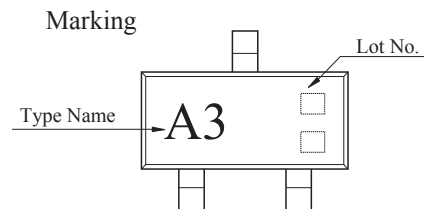
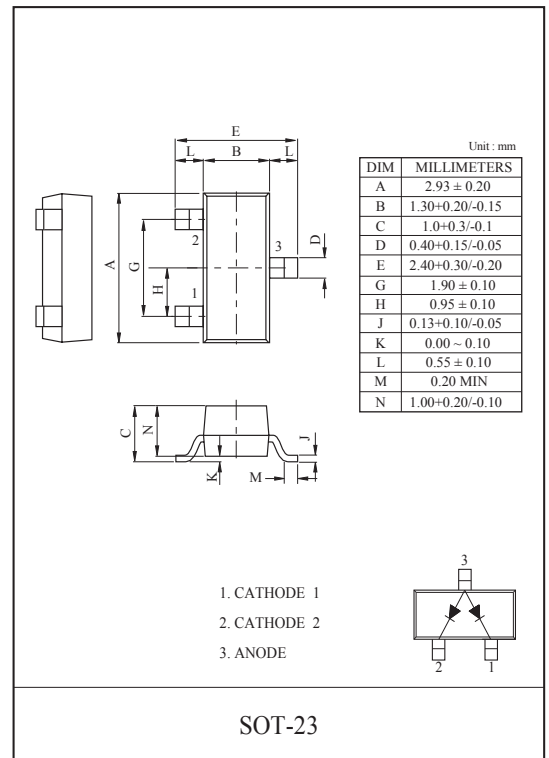
### FEATURES

- Small Package : SOT-23.
- Low Forward Voltag :  $V_F=0.92V$ (Typ.).
- Fast Reverse Recovery Time :  $t_{rr}=1.6ns$ (Typ.).
- Small Total Capacitance :  $C_T=2.2pF$ (Typ.).
- Suffix U : Qualified to AEC-Q101.  
ex) KDS181-RTK/HU

### MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	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 Range	$T_{stg}$	-55 ~ 150	°C

Note : \*Unit Rating. Total Rating=Unit Rating x 1.5



### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_{F(1)}$	$I_F=1mA$	-	0.61	-	V
	$V_{F(2)}$	$I_F=10mA$	-	0.74	-	
	$V_{F(3)}$	$I_F=100mA$	-	0.92	1.20	
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

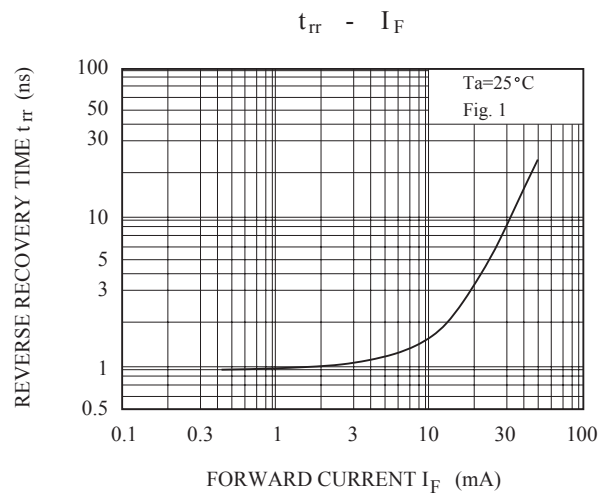
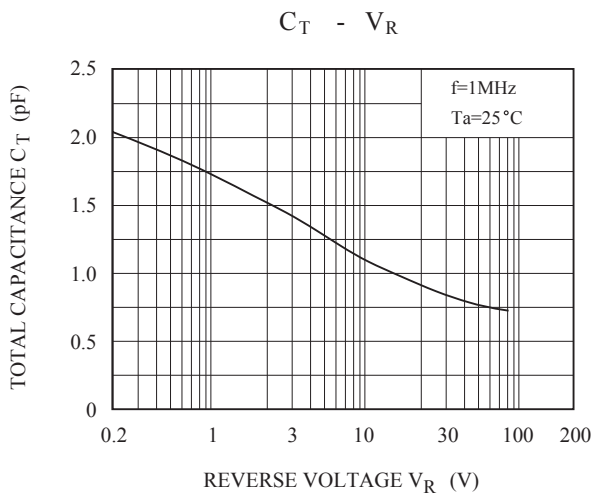
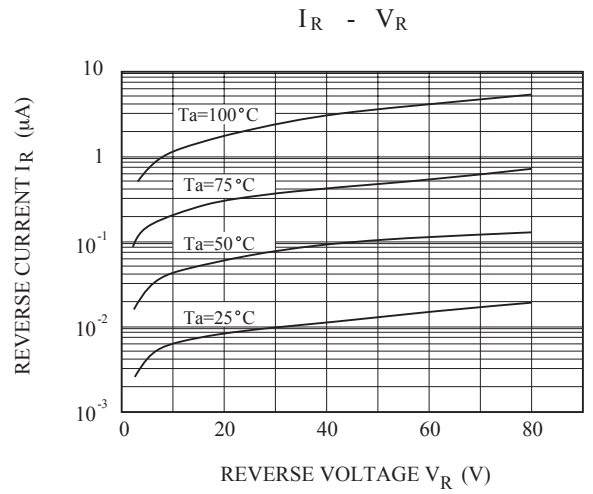
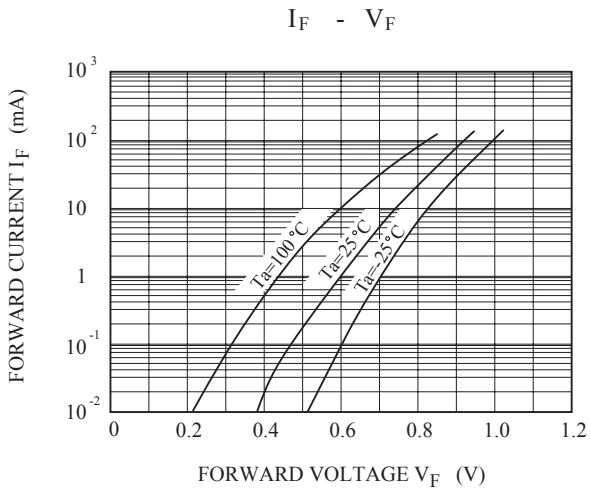


Fig. 1. REVERSE RECOVERY TIME( $t_{rr}$ ) TEST CIRCUIT

