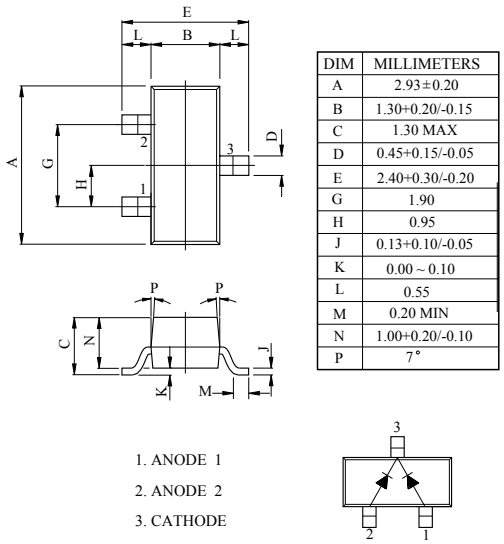
KDS184

SILICON EPITAXIAL PLANAR DIODE

ULTRA HIGH SPEED SWITCHING APPLICATION.

FEATURES

- Small Package : SOT-23.
- Low Forward Voltag : V_F=0.9V(Typ.).
- Fast Reverse Recovery Time : t_{rr}=1.6ns(Typ.).
- Small Total Capacitance : C_T=0.9pF(Typ.).



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/-0.15
C	1.30 MAX
D	0.45+0.15/-0.05
E	2.40+0.30/-0.20
G	1.90
H	0.95
J	0.13+0.10/-0.05
K	0.00 ~ 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/-0.10
P	7°

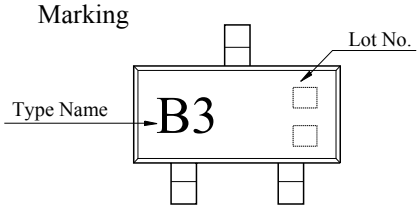
SOT-23

MAXIMUM RATING (Ta=25℃)

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	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃

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

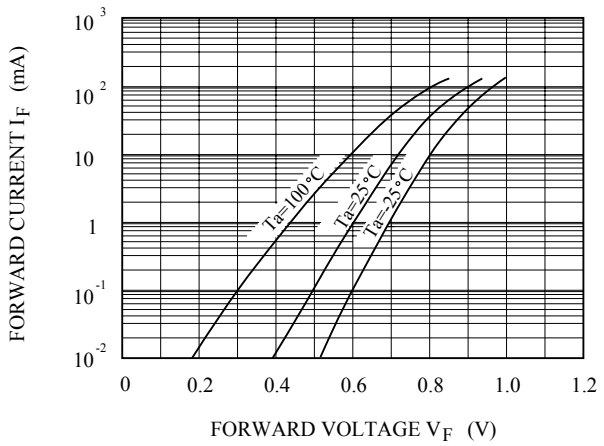
Marking



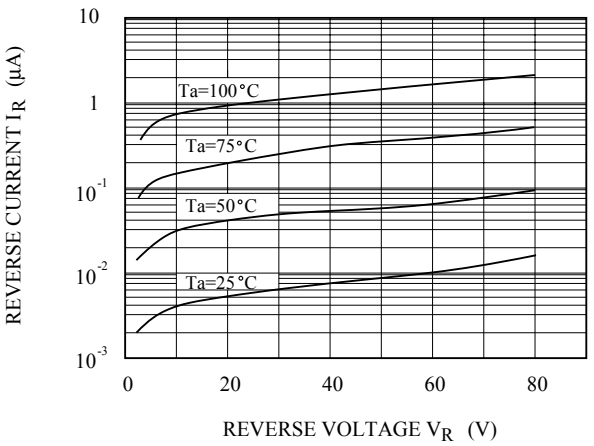
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_{F(1)}$	I_F=1mA	-	0.60	-	V
	$V_{F(2)}$	I_F=10mA	-	0.72	-	
	$V_{F(3)}$	I_F=100mA	-	0.90	1.20	
Reverse Current	I_R	V_R=80V	-	-	0.5	μA
Total Capacitance	C_T	V_R=0, f=1MHz	-	0.9	3.0	pF
Reverse Recovery Time	t_{rr}	I_F=10mA	-	1.6	4.0	nS

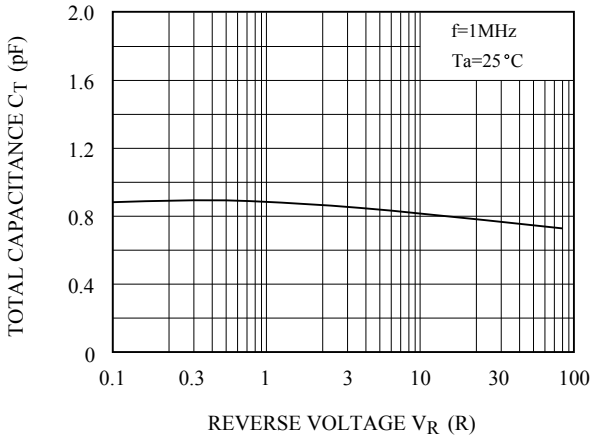
I_F - V_F



I_R - V_R



C_T - V_R



t_{rr} - I_F

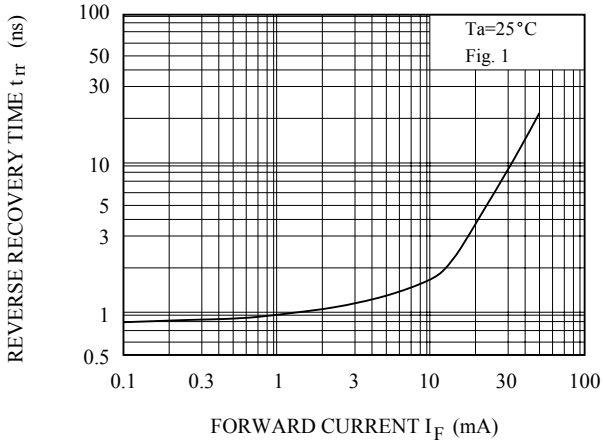


Fig. 1. REVERSE RECOVERY TIME(t_{rr}) TEST CIRCUIT