

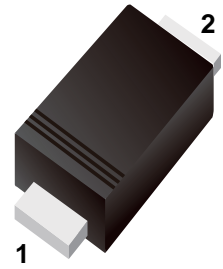
## Schottky Barrier Diode

### APPLICATIONS

- Rectification
- Protection against reverse connection of battery

### FEATURES

- Forward Voltage :  $V_F=0.49V$  (TYP.)
- Forward Current :  $I_{F(AV)}=1A$
- Repetitive Peak Reverse Voltage :  $V_{RM}=40V$



Simplified outline(SOD-123FL)



### ABSOLUTE MAXIMUM RATINGS $T_a=25^\circ C$

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	$V_{RM}$	40	V
Reverse Voltage (DC)	$V_R$	40	V
Forward Current (Average)	$I_{F(AV)}$	1	A
Non Continuous Forward Surge Current *1	$I_{FSM}$	10	A
Junction Temperature	$T_J$	125	
Storage Temperature Range	$T_{stg}$	-55 ~ +150	

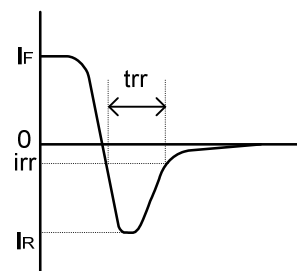
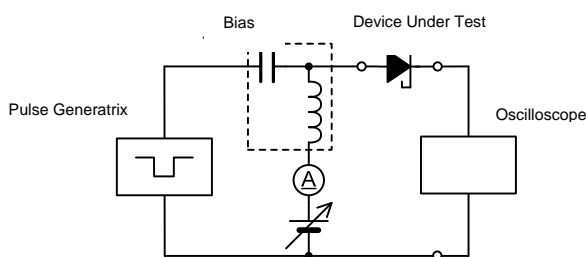
\*1 : Non continuous high amplitude 60Hz half-sine wave.

### ELECTRICAL CHARACTERISTICS

$T_a=25$

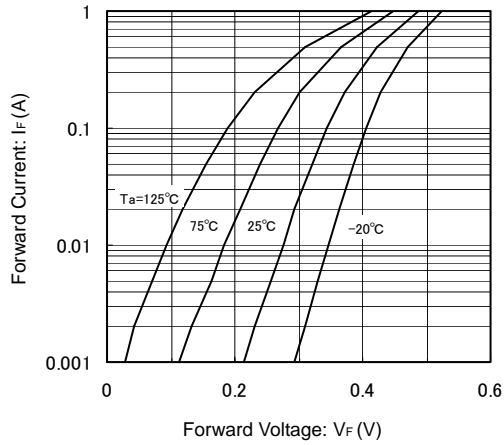
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	$V_{F1}$	$I_F=100mA$	-	0.34	-	V
	$V_{F2}$	$I_F=1A$	-	0.49	0.54	V
Reverse Current	$I_R$	$V_R=40V$	-	4	200	$\mu A$
Inter-Terminal Capacity	$C_t$	$V_R=10V$ , $f=1MHz$	-	35	-	pF
Reverse Recovery Time *2	$t_{rr}$	$I_F=I_R=10mA$ , $i_{rr}=1mA$ , $R_L=100$	-	25	-	ns

\*2 :  $t_{rr}$  measurement circuit

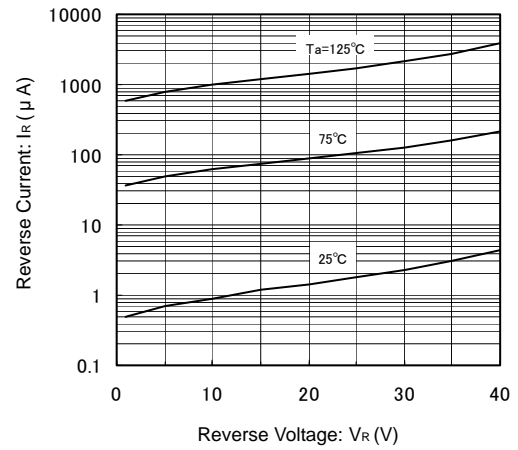


## ■ TYPICAL PERFORMANCE CHARACTERISTICS

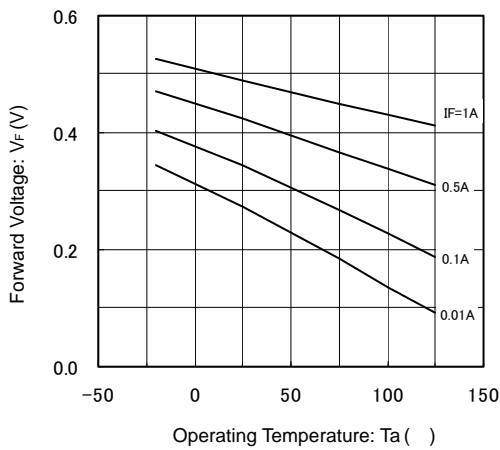
(1) Forward Current vs. Forward Voltage



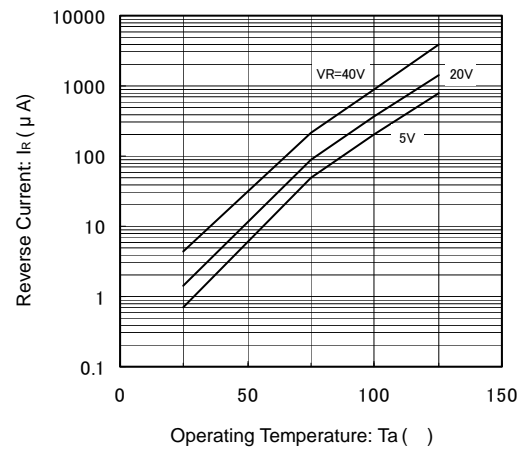
(2) Reverse Current vs. Reverse Voltage



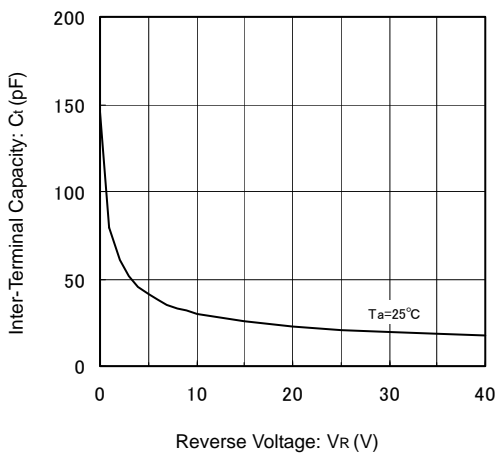
(3) Forward Voltage vs. Operating Temperature



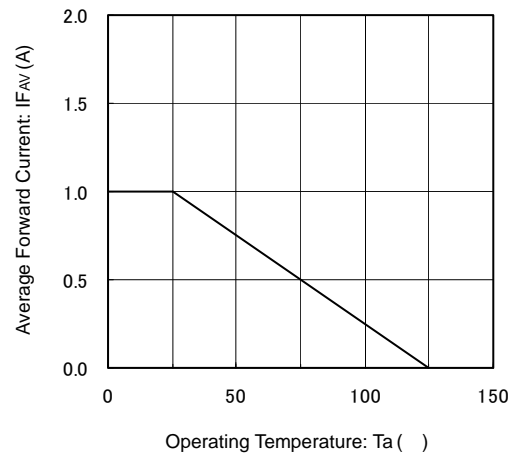
(4) Reverse Current vs. Operating Temperature



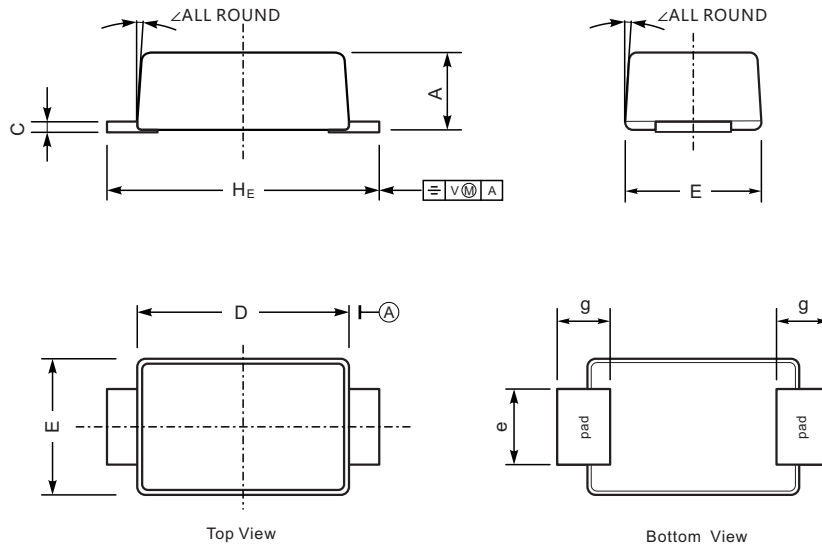
(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



## ■ SOD-123FL



UNIT		A	C	D	E	e	g	$H_E$	$\angle$
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

## ■ The recommended mounting pad size

