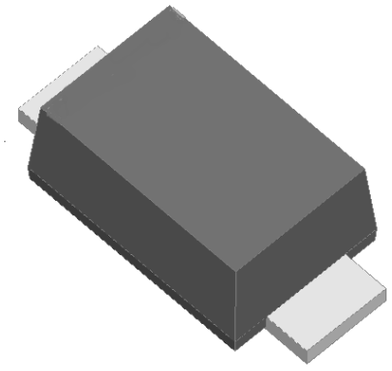
KxxxSD Series

Surface Monument High Voltage Bidirectional Trigger Diode

Breakdowm Reverse Voltage 70 ~ 220 V

SOD-123FL



Features

- Low reverse leakage
- High reliability
- High temperature soldering guaranteed: 260℃/10seconds on teminals
- Lead and body according with RoHS standard
- Bidirectional crowbar protection
- High forward surge current capability
- Will not fatigueThe plastic package carries Underwriters Laboratory, Flammability Classification 94V-0
- Eliminate voltage overshoot caused by fast-rising transients
- Cannot be damaged by voltage

Mechanical Data

- Case: JEDEC SOD-123FL Molded plastic
- Lead: Pure tin plated, lead free
- Mounting Position : Any

Electrical Parameters

Part Number	Marking	V_{DRM} (V)	V_{BO} (V)			V_T (V)	I_T (A)	I_{BO} (uA)	I_{DRM} (uA)	I_H (mA)
			Min.	Typ.	Max.					
K090SD	090	70	79	93	97	4.0	1.0	15	1.0	50
K105SD	105	90	95	105	110	4.0	1.0	15	1.0	50
K110SD	110	95	104	110	118	4.0	1.0	15	1.0	50
K120SD	120	100	110	122	125	4.0	1.0	15	1.0	50
K130SD	130	110	120	135	138	4.0	1.0	15	1.0	50
K140SD	140	120	130	140	146	4.0	1.0	15	1.0	50
K150SD	150	125	135	155	160	4.0	1.0	15	1.0	50
K160SD	160	130	140	163	170	4.0	1.0	15	1.0	50
K180SD	180	160	165	180	195	4.0	1.0	15	1.0	50
K200SD	200	180	190	205	215	4.0	1.0	15	1.0	50
K220SD	220	190	205	220	230	4.0	1.0	15	1.0	50
K240SD	240	200	220	240	250	4.0	1.0	15	1.0	50
K260SD	260	220	240	260	280	4.0	1.0	15	1.0	50

Note:

1) All measurements are made at an ambient temperature of 25℃.

Thermal Considerations

Package	Symbol	Parameter	Value	Unit
SOD-123FL	T_J	Operating Junction Temperature	125	℃
	T_S	Storage Temperature Range	-40 to +125	℃
	$R_{\theta JA}$	Junction to Ambient on printed circuit	180	℃/W

Characteristics Curves

Figure 1. V-I Characteristics

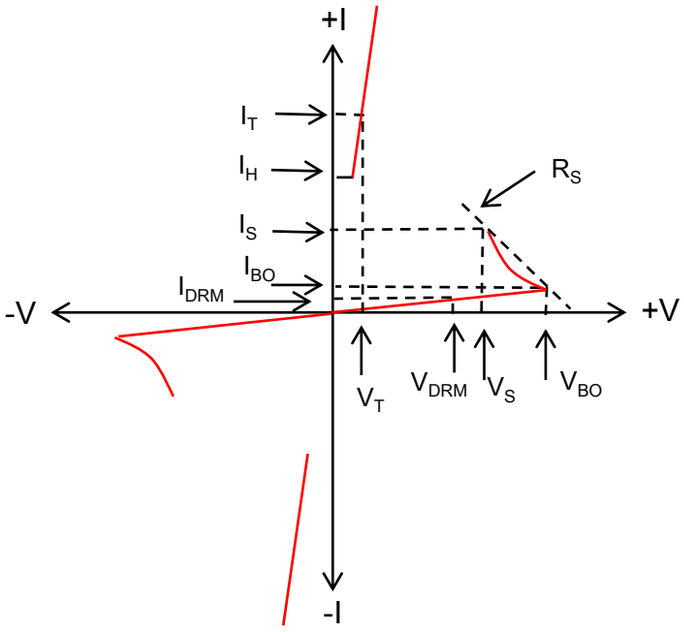


Figure 2. t_r x t_d Pulse Wave-form

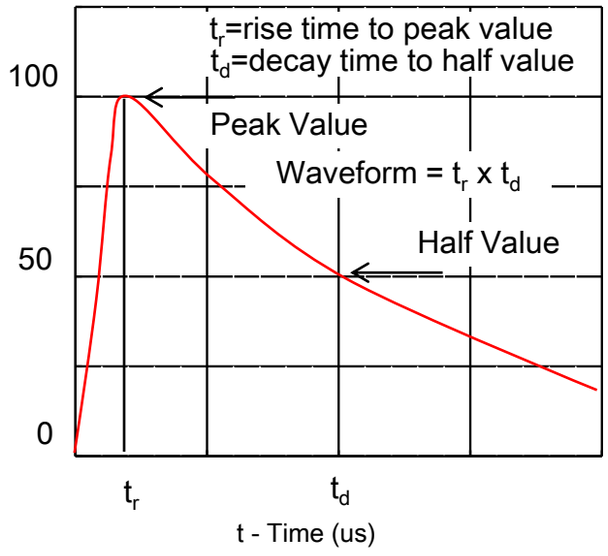


Figure 3. Normalized V_S Change versus Junction Temperature

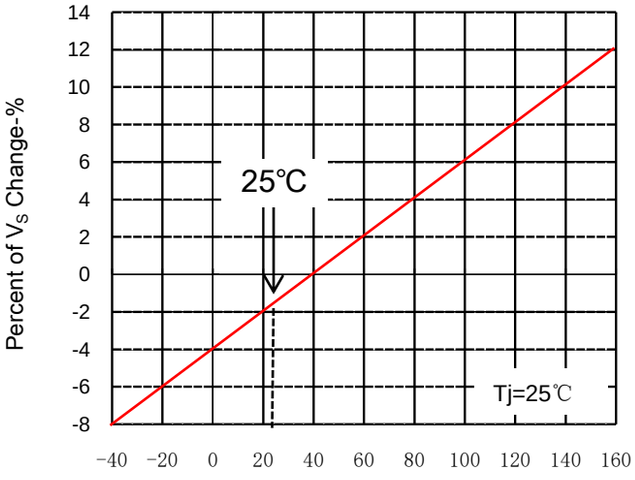
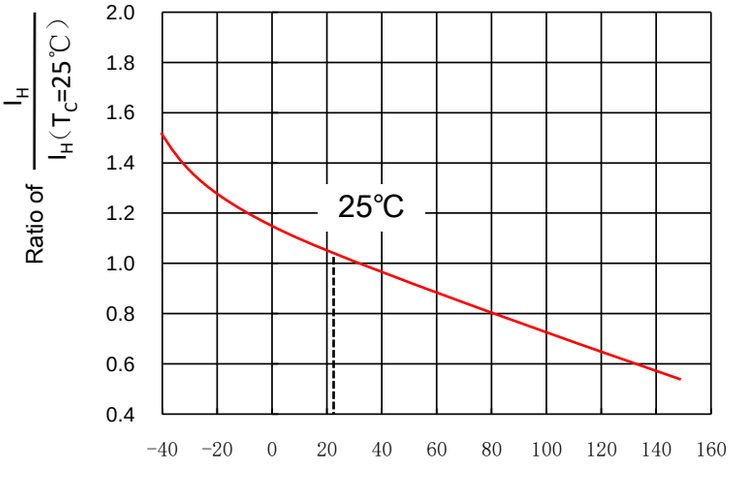
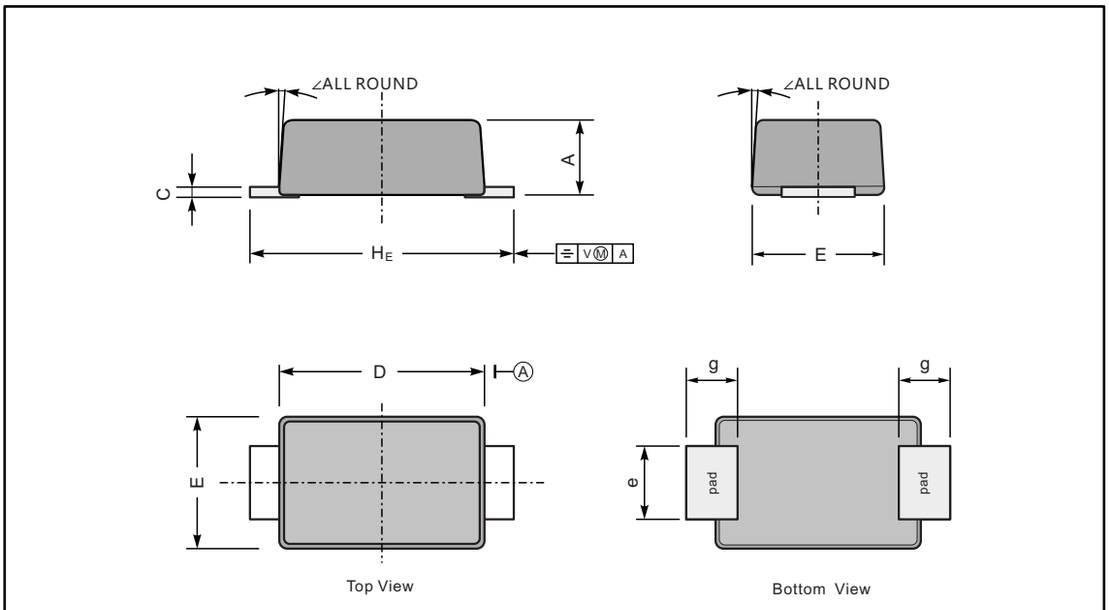


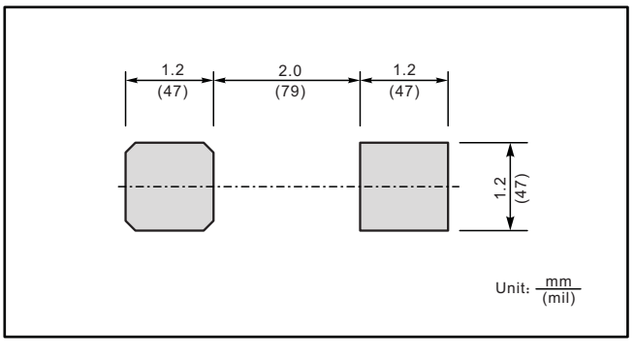
Figure 4. Normalized DC Holding Current versus Case Temperature



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads SOD-123FL



UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.3	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	51	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size