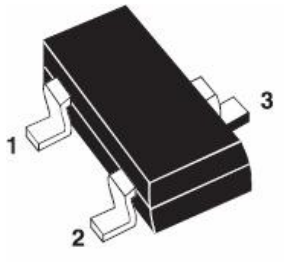
Features

- 2 Unidirectional Transil functions
- Low leakage current: I_{RM} max< 1 µA at V_{RM}
- 300W peak pulse power(8/20µs)



Complies with the following standards

IEC61000-4-2

Level 4 15 kV (air discharge)

8 kV(contact discharge)

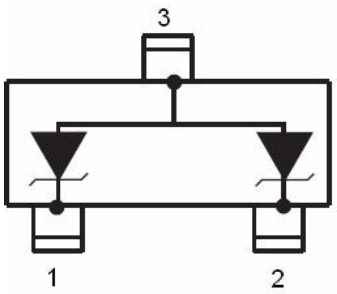
MIL STD 883E - Method 3015-7 Class 3

25 kV HBM (Human Body Model)

Applications

- Computers
- Printers
- Communication systems

It is particularly recommended for the RS232 I/O port protection where the line interface withstands only with 2kV ESD surges.



SOT-23

Electrical Characteristics

P/N	V_{BR} @ I_R			I_{RM} @ V_{RM}		Rd	αT	C	V_F @ I_F	
	min.	max.		max.		typ. note 1	max. note 2	typ. 0V bias	max.	
	V	V	mA	µA	V	mΩ	$10^{-4}/\supset C$	pF	V	mA
KNESDA5V3L	5.3	5.9	1	2	3	280	5	220	1.25	200
KNESDA6V1L	6.1	7.2	1	20	5.25	350	6	140	1.25	200
KNESDA14V2L	14.2	15.8	1	5	12	650	10	90	1.25	200
KNESDA25VL	25	30	1	1	24	1000	10	50	1.2	10

note 1 : Square pulse Ipp = 15A, tp=2.5µs.

note 2 : Δ VBR = αT* (Tamb -25°C) * VBR (25°C)

Absolute Ratings (T_{amb}=25°C)

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power (t_p = 8/20µs)	300	W
T_L	Maximum lead temperature for soldering during 10s	260	°C
T_{stg}	Storage Temperature Range	-55 to +155	°C
T_{op}	Operating Temperature Range	-40 to +125	°C
T_j	Maximum junction temperature	150	°C
V_{PP}	Electrostatic discharge MIL STD 883C -Method 3015-6 IEC61000-4-2 air discharge IEC61000-4-2 contact discharge	 25 15 8	kV

Electrical Parameter

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T

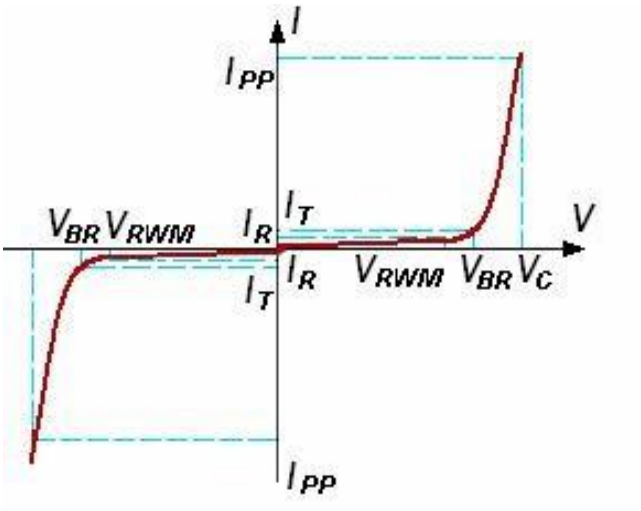


FIG1: Pulse Waveform

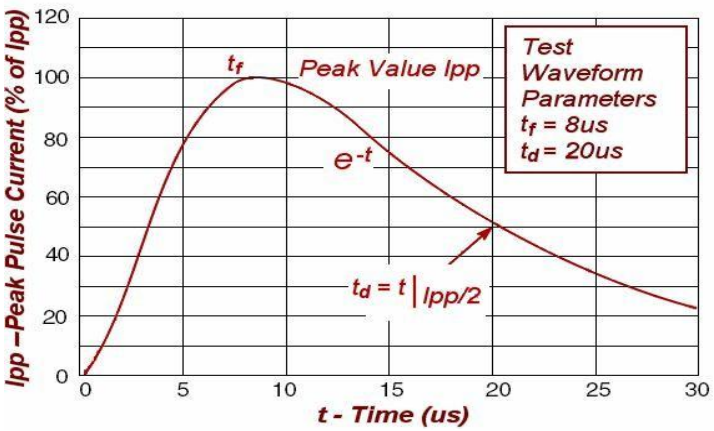
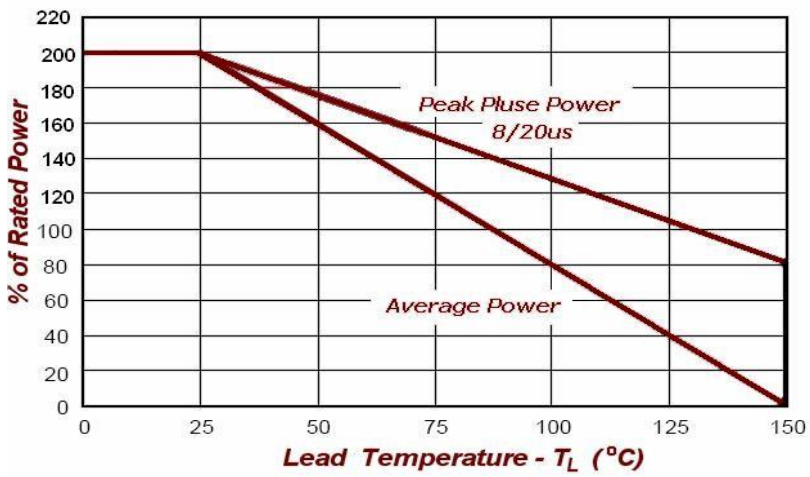
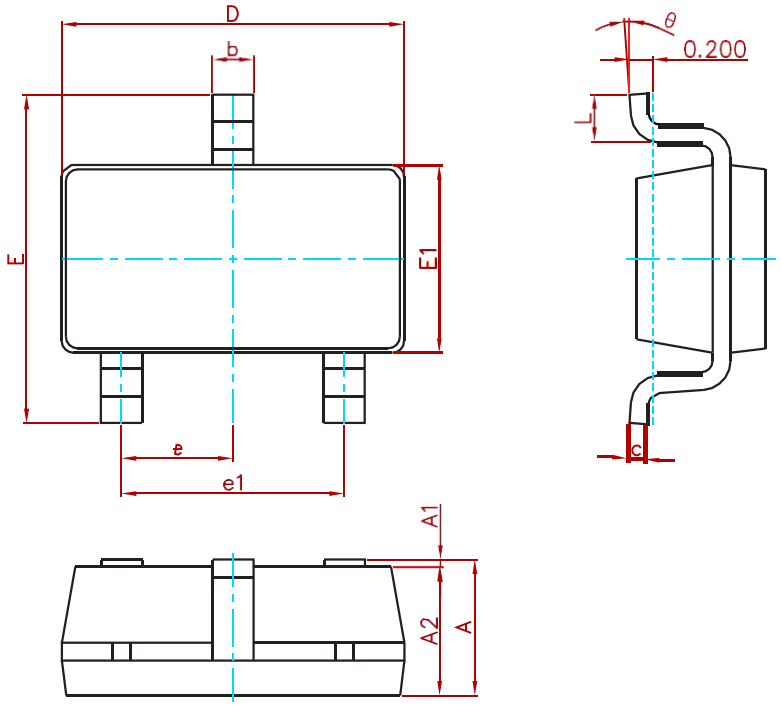


FIG2:Power Derating

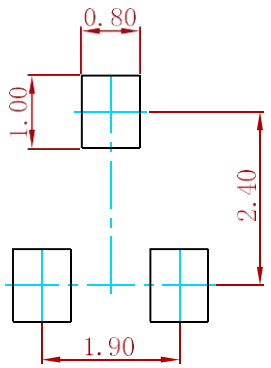


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
0	0°	8°	0°	8°

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
KNESDAXXXL	SOT-23	3000