



YOUSHANG SEMICONDUCTOR

**设计研发新型功率器件**

**各类小信号开关**

**中低压及高压大电流等场效应管**

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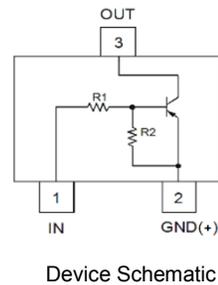
## Features

- Epitaxial Planar Die Construction
- Built-In Biasing Resistors
- Surface Mount Package Suited for Automated Assembly

## Mechanical Data

- Case: SOT323
- Case Material: Molded Plastic, "Green" Molding Compound; UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 
- Weight: 0.006 grams (Approximate)

PartNumber	R1(NOM)	R2(NOM)
NK-DDTB113EU	1k $\Omega$	1k $\Omega$
NK-DDTB123EU	2.2k $\Omega$	2.2k $\Omega$
NK-DDTB143EU	4.7k $\Omega$	4.7k $\Omega$
NK-DDTB114EU	10k $\Omega$	10k $\Omega$
NK-DDTB122JU	0.22k $\Omega$	4.7k $\Omega$
NK-DDTB113ZU	1k $\Omega$	10k $\Omega$
NK-DDTB123YU	2.2k $\Omega$	10k $\Omega$
NK-DDTB133HU	3.3k $\Omega$	10k $\Omega$
NK-DDTB123TU	2.2k $\Omega$	Open
NK-DDTB143TU	4.7k $\Omega$	Open
NK-DDTB114TU	10k $\Omega$	Open
NK-DDTB114GU	0	10k $\Omega$



**Absolute Maximum Ratings** (@  $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

Characteristic		Symbol	Value	Unit
Supply Voltage, (3) to (2)		$V_{CC}$	50	V
Input Voltage, (1) to (2)	NK-DDTB113EU	$V_{IN}$	+10 to -10	V
	NK-DDTB123EU		+10 to -12	
	NK-DDTB143EU		+10 to -30	
	NK-DDTB114EU		+10 to -40	
	NK-DDTB122JU		+5 to -5	
	NK-DDTB113ZU		+5 to -10	
	NK-DDTB123YU		+5 to -12	
	NK-DDTB133HU	+6 to -20		
Input Voltage, (2) to (1)	NK-DDTB123TU NK-DDTB143TU NK-DDTB114TU NK-DDTB114GU	$V_{EBO (MAX)}$	-5	V
Output Current	All	$I_C$	-500	mA

**Thermal Characteristics** (@  $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

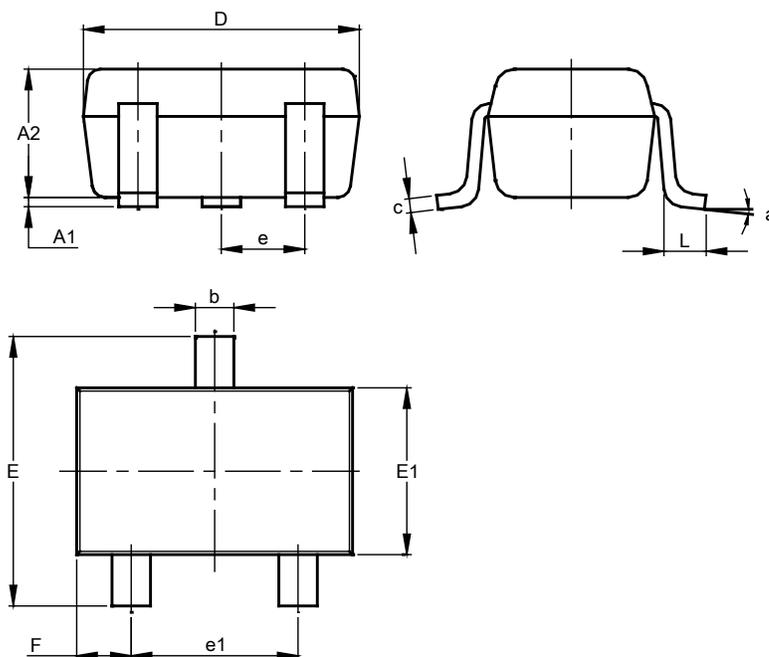
Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	$P_D$	200	mW
Thermal Resistance, Junction to Ambient Air (Note 5)	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

Note: 5. Mounted on FR4 PC Board with minimum recommended pad layout.



## Package Outline Dimensions

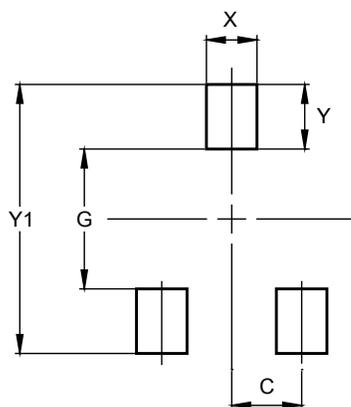
SOT323



SOT323			
Dim	Min	Max	Typ
A1	0.00	0.10	0.05
A2	0.90	1.00	0.95
b	0.25	0.40	0.30
c	0.10	0.18	0.11
D	1.80	2.20	2.15
E	2.00	2.20	2.10
E1	1.15	1.35	1.30
e	0.650 BSC		
e1	1.20	1.40	1.30
F	0.375	0.475	0.425
L	0.25	0.40	0.30
a	0°	8°	--
<b>All Dimensions in mm</b>			

## Suggested Pad Layout

SOT323



Dimensions	Value (in mm)
C	0.650
G	1.300
X	0.470
Y	0.600
Y1	2.500