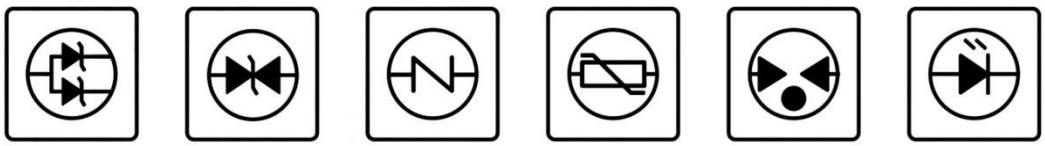
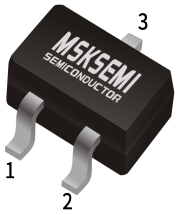
MSKSEMI
SEMICONDUCTOR



Product data sheet

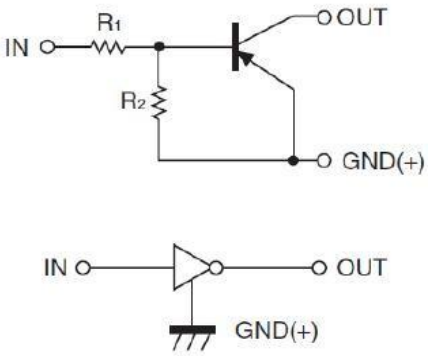


SOT-523

FEATURES:

- Built-in resistors enable the configuration of a inverter circuit without connecting external input resistors.
- The bias resistors consist of thin-film resistors with complete isolation to allow positive biasing of the input. They also have the advantage of almost completely eliminating parasitic effects.
- Only the on/off conditions need to be set for operation, making device design easy.
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Weight: approx. 0.002g

ELECTRICAL SYMBOL:



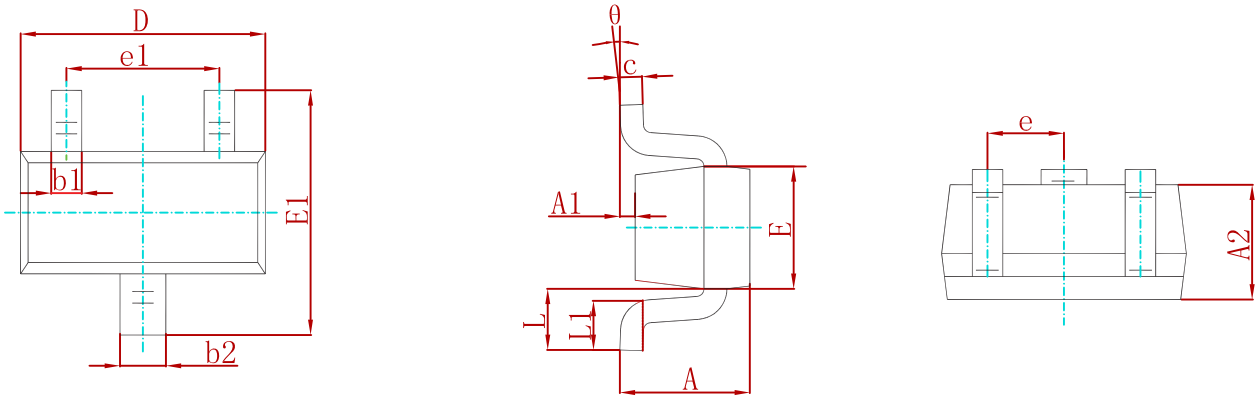
Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Limits			Unit
			Min	Typ	Max	
Input Voltage	$V_{I(off)}$	V_{CC}= -5V, I_O= -100uA	-0.5			V
	$V_{I(on)}$	V_O= -0.3V, I_O=-5mA			-1.1	V
Output Voltage	$V_{O(on)}$	I_O / I_I = -5mA/-0.25mA		-0.1	-0.3	V
Input Current	I_I	V_I = -5V			-3.6	mA
Output Current	$I_{O(off)}$	V_{CC} = -50V, V_I = 0V			-0.5	uA
DC Current Gain	G_I	V_O = -5V, I_O = -10mA	80			
Input Resistance	R_1		1.54	2.2	2.86	KΩ
Resistance Ratio	R_2/R_1		17	21	26	
Transition Frequency	f_T	V_O = -10V, I_O = −5mA f=100MHz		250		MHz

Absolute Maximum Ratings (T_A = 25°C unless otherwise noted)

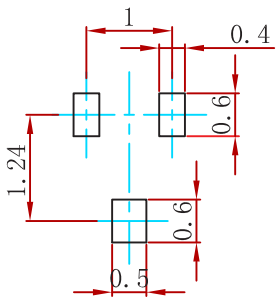
Symbol	Parameter	Value	Units
V_{CC}	Supply Voltage	-50	V
V_{IN}	Input Voltage	-12 ~ +5	V
I_O	Output Current	-100	mA
I_{CM}	Peak Collector Current	-100	mA
P_D	Power Dissipation	150	mW
T_J	Junction to Ambient	150	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	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
DTA123JE-MS	SOT-523	3000

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