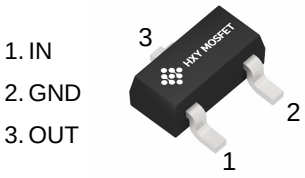
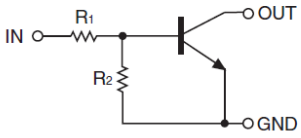
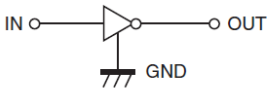
Features

- Simplifies Circuit Design.
- Reduces Board Space and Component Count.
- The bias resistors consist of thin-film resistors with complete isolation to allow negative 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



SOT-23





Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MMUN2233LT1G	SOT-23	A8K	3000

Maxmim Ratings (Ta=25℃unless otherwise noted)

Symbol	Parameter	Limits	Unit
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
I_C	Collector Current	100	mA
P_D	Total Power Dissipation @T_A=25℃	200	mW
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55～+150	℃

Electrcal Charcteristics (Ta=25℃unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-Base Cutoff Current	I_{CBO}	V_{CB} = 50 V, I_E = 0			100	nA
Collector-Emitter Cutoff Current	I_{CEO}	V_{CB} = 50 V, I_B = 0			500	nA
Emitter-Base Cutoff Current	I_{EBO}	V_{EB} = 6.0 V, I_C = 0			180	nA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 10 μA, I_E = 0	50			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 2m A, I_B = 0	50			V
DC Current Gain	h_{FE}	V_{CE} = 10 V, I_C = 5.0 mA	80	200		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 10mA, I_B = 0			0.25	V
Output Voltage (on)	V_{OL}	V_{CC} = 5.0 V, V_B = 2.5 V, R_L = 1.0 k Ω			0.2	V
Output Voltage (off)	V_{OH}	V_{CC} = 5.0 V, V_B = 0.05 V, R_L = 1.0 k Ω	4.9			V
Input Resistor	R_1		3.3	4.7	6.1	V
Resistor	R_1/R_2		0.055	0.1	0.185	V

Typical Characteristics

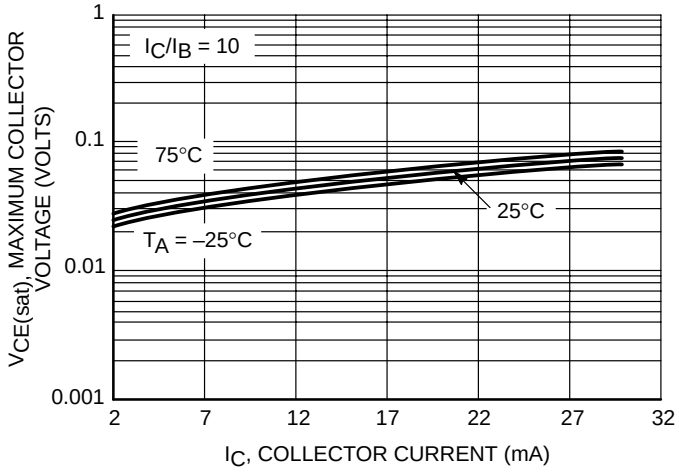


Figure 1. $V_{CE(sat)}$ vs. I_C

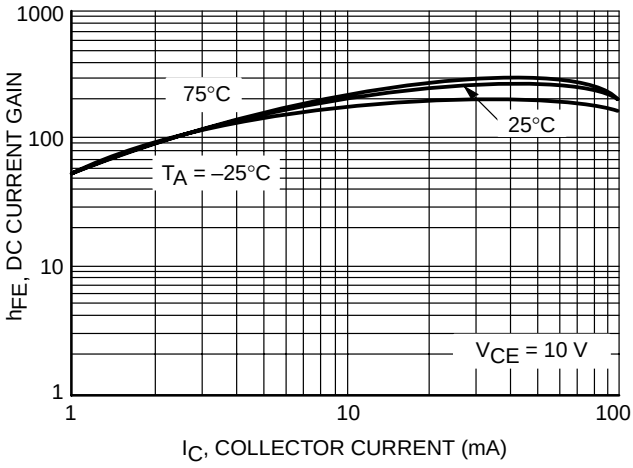


Figure 2. DC Current Gain

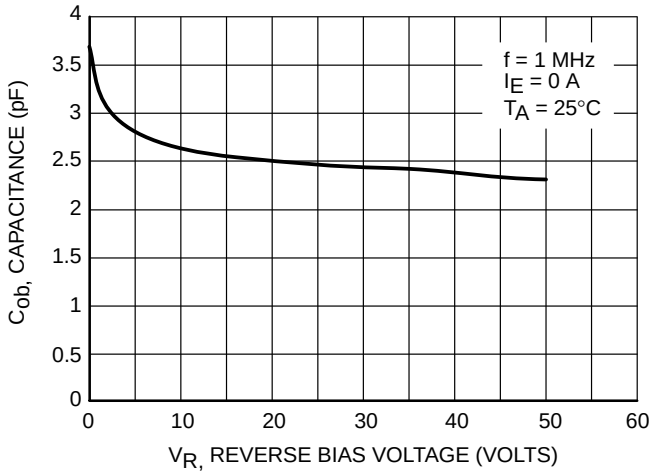


Figure 3. Output Capacitance

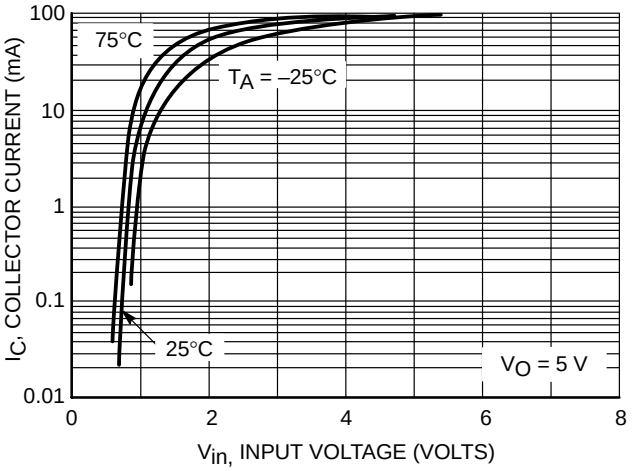


Figure 4. Output Current vs. Input Voltage

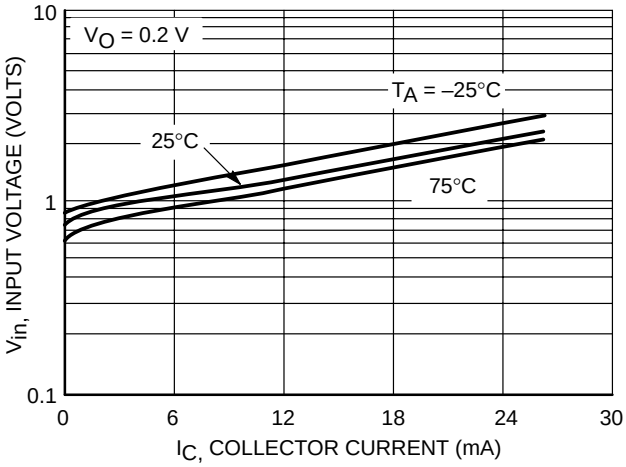
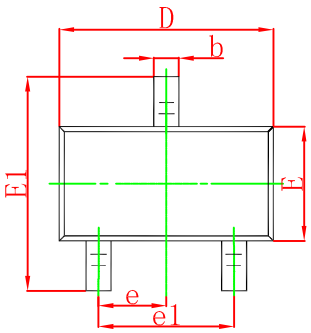
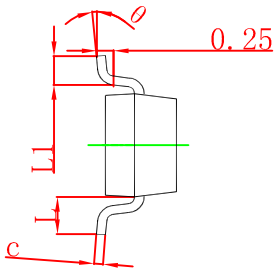
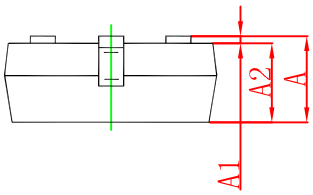


Figure 5. Input Voltage vs. Output Current

SOT-23 Package Outline Dimensions

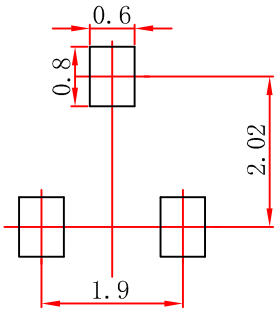






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



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

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