

Bias Resistor Transistor NPN Silicon Surface Mount Transistor with Monolithic Bias Resistor Network

● FEATURES

- 1) Simplifies Circuit Design
- 2) Reduces Board Space and Component Count
- 3) We declare that the material of product compliant with RoHS requirements and Halogen Free.
- 4) S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

● DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LMUN2212LT1G	A8B	3000/Tape&Reel
LMUN2212LT3G	A8B	10000/Tape&Reel

● MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	VCBO	50	V
Collector-Emitter Voltage	VCEO	50	V
Collector Current	IC	100	mA
Total Power Dissipation @ Ta = 25°C(Note 1.) Derate above 25°C	PD	246 1.5	mW °C/W

● THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Thermal Resistance – Junction-to-Ambient (Note 1.)	R _{θJA}	508	°C/W
Operating and Storage Temperature Range	T _{opr} , T _{stg}	-55 to +150	°C
Maximum Temperature for Soldering Purposes, Time in Solder Bath	TL	260 10	°C Sec

● ELECTRICAL CHARACTERISTICS (Ta= 25°C)

OFF CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-Base Cutoff Current	ICBO	–	–	100	nA	V _{CB} = 50 V, I _E = 0
Collector-Emitter Cutoff Current	ICEO	–	–	500	nA	V _{CE} = 50 V, I _B = 0
Emitter-Base Cutoff Current	IEBO	–	–	0.2	mA	V _{EB} = 6.0 V, I _C = 0
Collector-Base Breakdown Voltage	V(BR)CBO	50	–	–	V	I _C = 10 μA, I _E = 0
Collector-Emitter Breakdown Voltage	V(BR)CEO	50	–	–	V	I _C = 2.0 mA, I _B = 0

ON CHARACTERISTICS(Note2.)

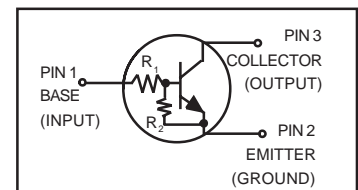
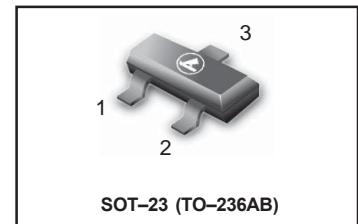
DC Current Gain	h _{FE}	60	100	–		V _{CE} = 10 V, I _C = 5.0 mA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	–	–	0.25	V	I _C = 10 mA, I _B = 0.3 mA
Output Voltage (on)	V _{OL}	–	–	0.2	V	V _{CC} = 5.0 V, V _B = 2.5 V, R _L = 1.0 kΩ
Output Voltage (off)	V _{OH}	4.9	–	–	V	V _{CC} = 5.0 V, V _B = 0.5 V, R _L = 1.0 kΩ
Input Resistor	R ₁	15.4	22	28.6	kΩ	
Resistor Ratio	R ₁ /R ₂	0.8	1	1.2		

1. Device mounted on a FR-4 glass epoxy printed circuit board using the minimum recommended footprint

2. Pulse Test: Pulse Width < 300 μs, Duty Cycle < 2.0%.

LMUN2212LT1G

S-LMUN2212LT1G



LMUN2212LT1G,S-LMUN2212LT1G

ELECTRICAL CHARACTERISTIC CURVES

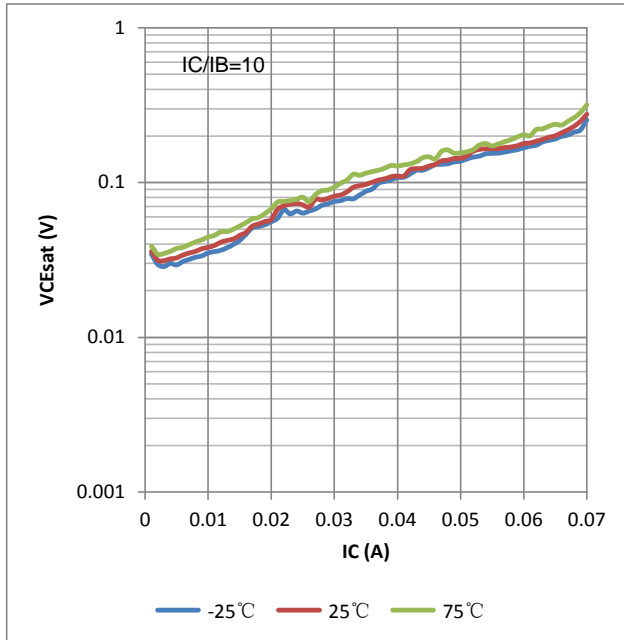


Figure 1. Collector Emitter Saturation Voltage vs. Collector Current

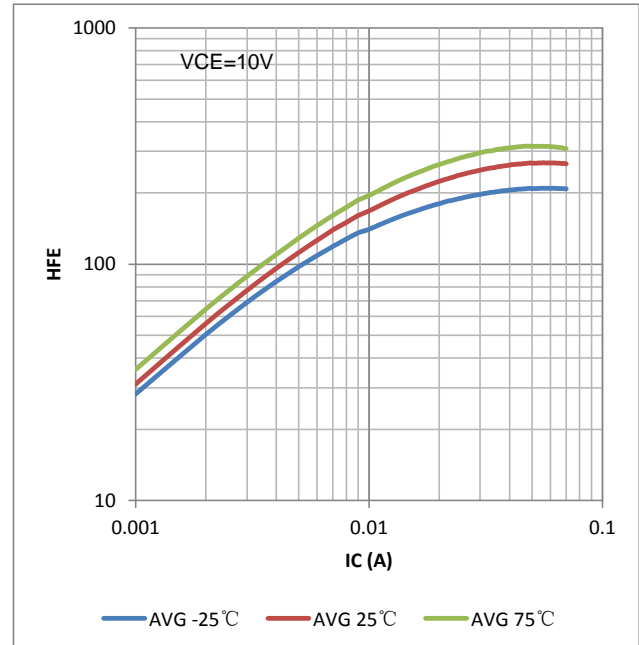


Figure 2. DC Current Gain

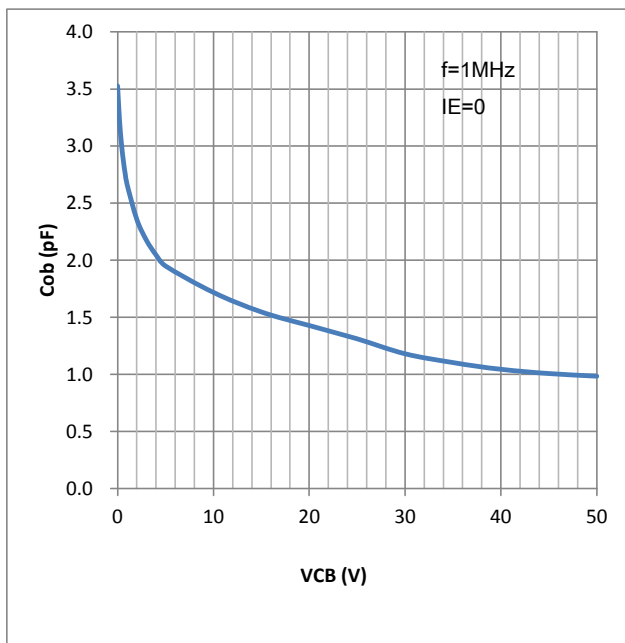


Figure 3. Output Capacitance

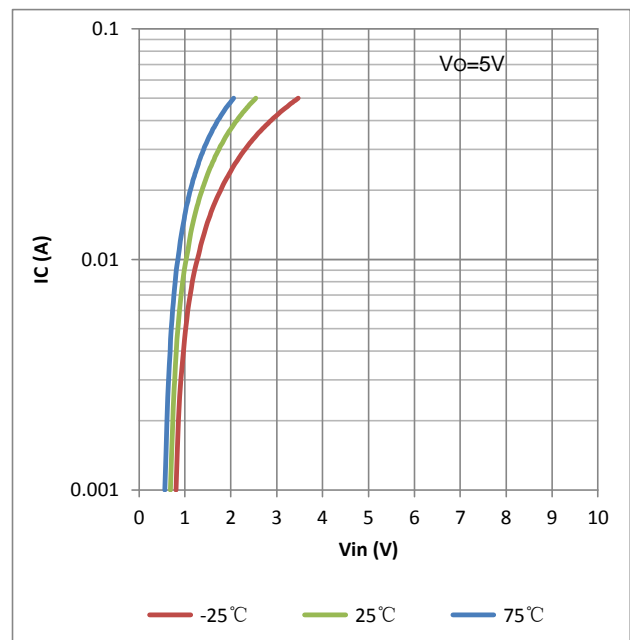


Figure 4. Output Current vs. Input Voltage

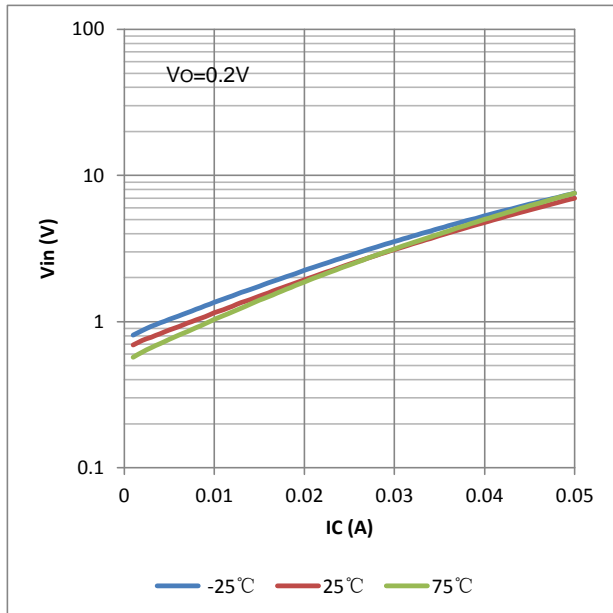
LMUN2212LT1G,S-LMUN2212LT1G**ELECTRICAL CHARACTERISTIC CURVES**

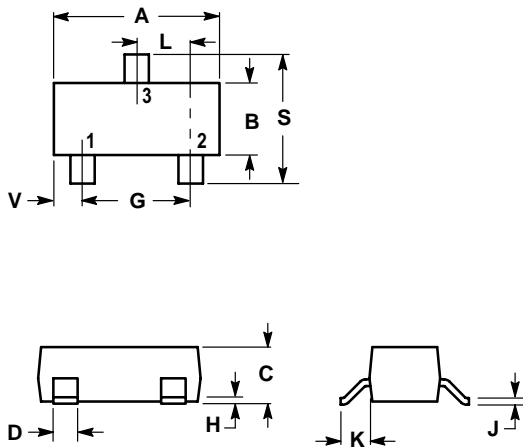
Figure 5. Input Voltage vs Output Current

LMUN2212LT1G,S-LMUN2212LT1G

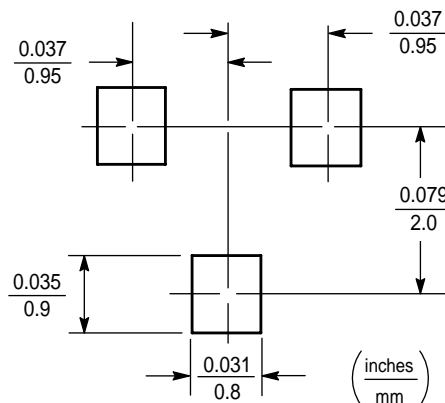
SOT-23

NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M,1982
2. CONTROLLING DIMENSION: INCH.



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - Pre-Biased](#) category:

Click to view products by [Leshan](#) manufacturer:

Other Similar products are found below :

[RN1607\(TE85L,F\)](#) [DRC9A14E0L](#) [DTA124GKAT146](#) [DTA144WETL](#) [DTA144WKAT146](#) [DTC113EET1G](#) [DTC115TETL](#)
[DTC115TKAT146](#) [DTC124TETL](#) [DTC144VUAT106](#) [MUN5241T1G](#) [NSBA114TDP6T5G](#) [SMUN5330DW1T1G](#) [SSVMUN5312DW1T2G](#)
[RN1303\(TE85L,F\)](#) [RN1306\(TE85L,F\)](#) [RN4605\(TE85L,F\)](#) [TTEPROTOTYPE79](#) [EMH15T2R](#) [SMUN2214T3G](#) [SMUN5335DW1T1G](#)
[NSBC143ZPDP6T5G](#) [NSVMUN5113DW1T3G](#) [SMUN5230DW1T1G](#) [SMUN2214T1G](#) [FMA7AT148](#) [DTC114EUA-TP](#)
[NSVDTA114EET1G](#) [SMUN5237DW1T1G](#) [SMUN5213DW1T1G](#) [SMUN5114DW1T1G](#) [SMUN2111T1G](#) [DTC124ECA-TP](#)
[DTC123TM3T5G](#) [DTA114ECA-TP](#) [DTA113EM3T5G](#) [DTC113EM3T5G](#) [NSVMUN5135DW1T1G](#) [NSVMUN2237T1G](#)
[NSVDTC143ZM3T5G](#) [SMUN5335DW1T2G](#) [SMUN5216DW1T1G](#) [NSVMUN5316DW1T1G](#) [NSVMUN5215DW1T1G](#)
[NSVMUN5213DW1T3G](#) [NSVMUN2112T1G](#) [NSVIMD10AMT1G](#) [NSVEMC2DXV5T1G](#) [NSVDTC144WET1G](#) [NSVDTC123JET1G](#)