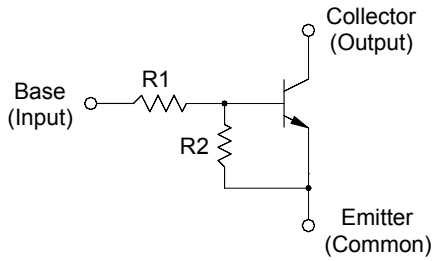
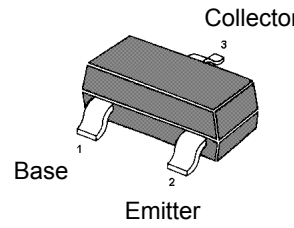
NPN Silicon Epitaxial Planar Transistor

for switching and interface circuit and
drive circuit applications





SOT-23

Resistor Values

Type	R1 (K)	R2 (K)	Mraking
LMUN2212LT1G	22	22	A8B

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CEO}	50	V
Collector Current	I_C	100	mA
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

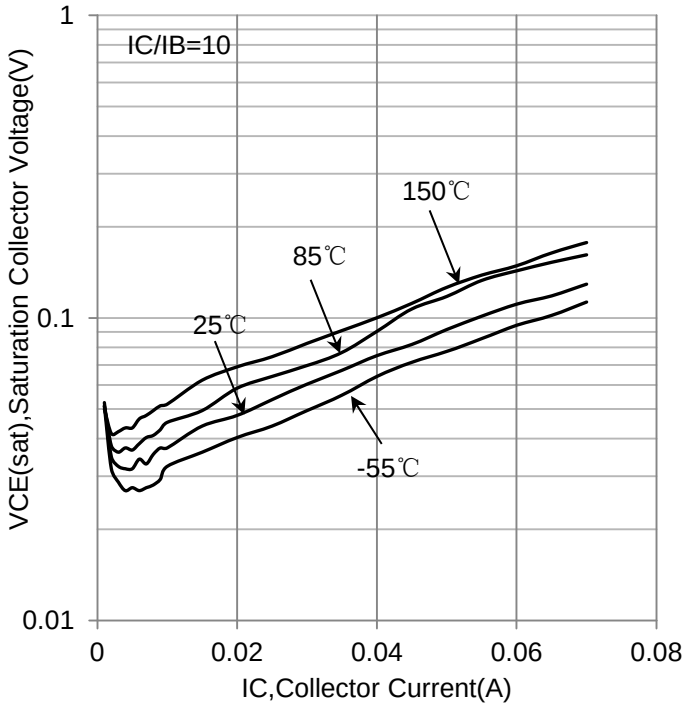
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at V_{CE} = 10 V, I_C = 5 mA	h_{FE}	60	-	-
Collector Base Cutoff Current at V_{CB} = 50 V	I_{CBO}	-	100	nA
Collector Emitter Cutoff Current at V_{CE} = 50 V	I_{CEO}	-	500	nA
Emitter Base Cutoff Current at V_{EB} = 6 V	I_{EBO}	-	0.2	mA
Collector Base Breakdown Voltage at I_C = 10 μA	$V_{(BR)CBO}$	50	-	V
Collector Emitter Breakdown Voltage at I_C = 2 mA	$V_{(BR)CEO}$	50	-	V
Collector Emitter Saturation Voltage at I_C = 10 mA, I_B = 0.3 mA		-	0.25	V

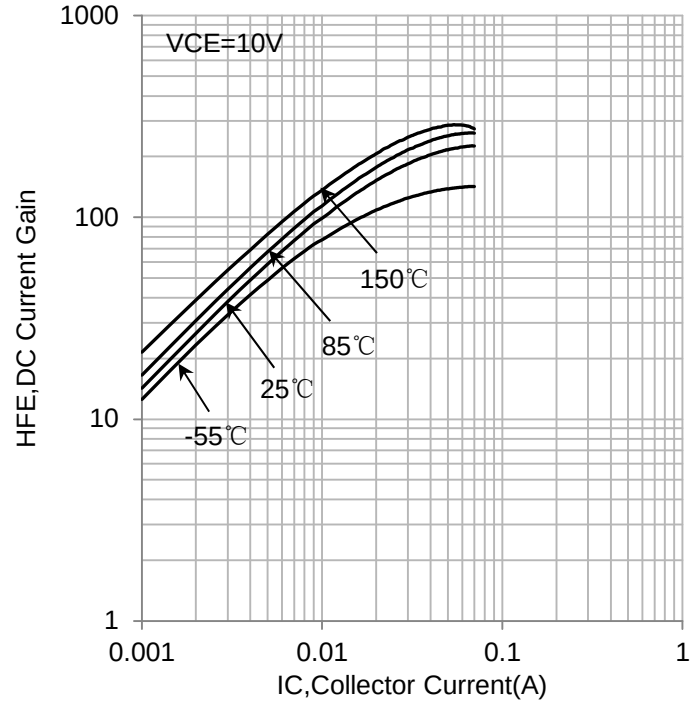
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Output Voltage (on) at V_{CC} = 5 V, V_B = 2.5 V, R_L = 1 KΩ	V_{OL}	-	0.2	V
Output Voltage (off) at V_{CC} = 5 V, V_B = 0.5 V, R_L = 1 KΩ	V_{OH}	4.9	-	V
Input Resistor	R1	15.4	28.6	KΩ
Resistor Ratio	R1/R2	0.8	1.2	-

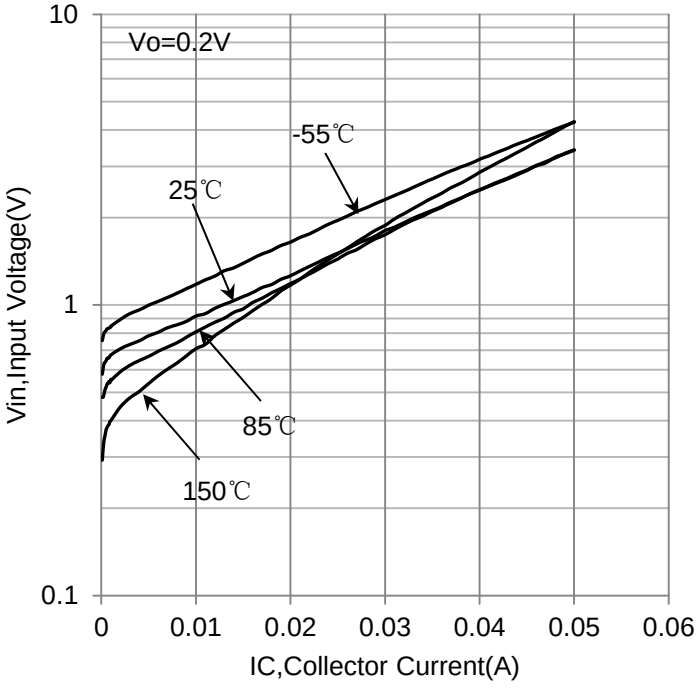
ELECTRICAL CHARACTERISTICS CURVES



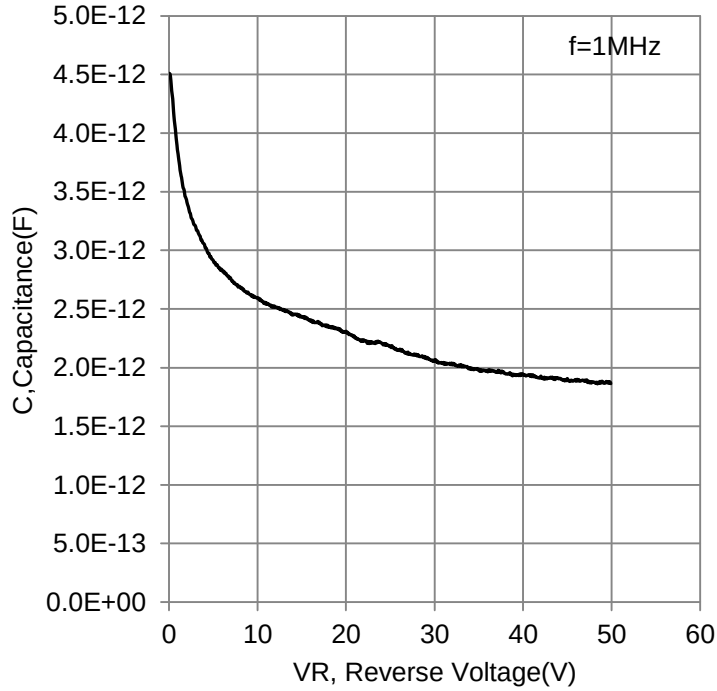
VCE(sat) vs.IC



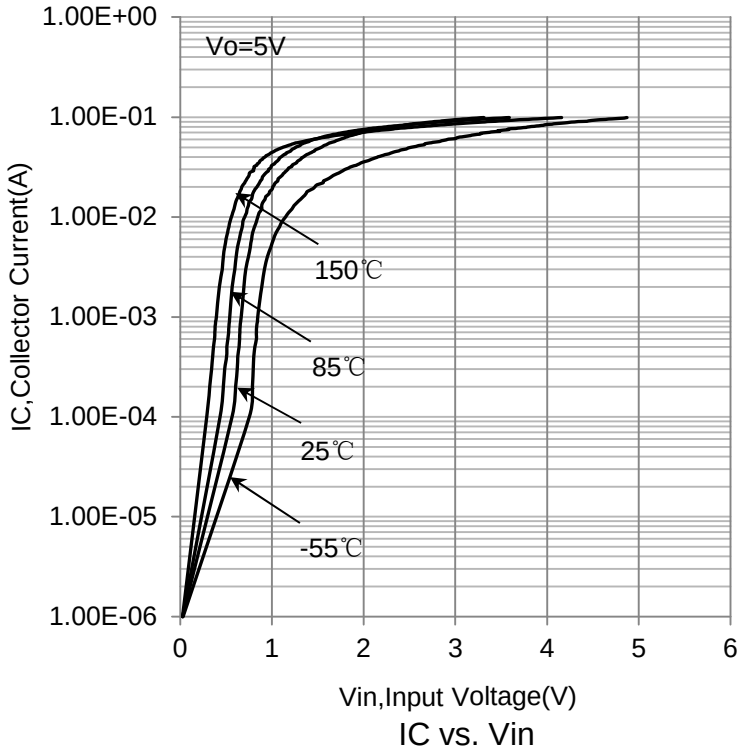
DC Current Gain



Vin vs. IC



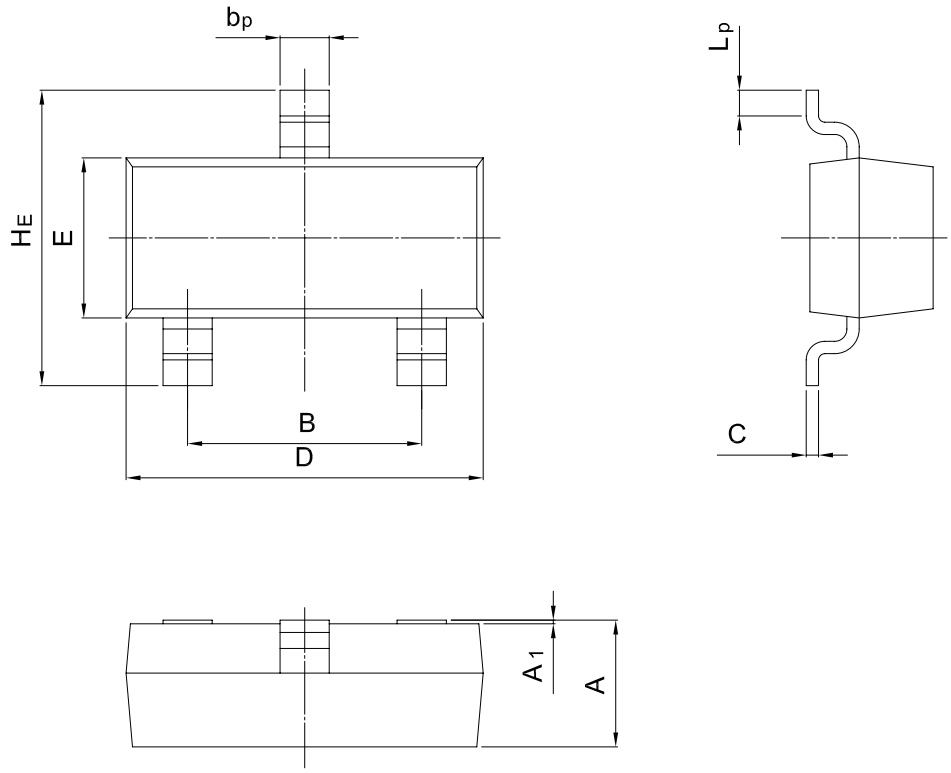
Capacitance vs. VR


1.00E+00
1.00E-01
1.00E-02
1.00E-03
1.00E-04
1.00E-05
1.00E-06
IC,Collector Current(A)
Vo=5V
150℃
85℃
25℃
-55℃
0
1
2
3
4
5
6
Vin,Input Voltage(V)
IC vs. Vin

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20