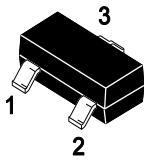
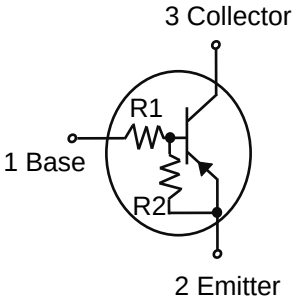
LDTA143XLT1G
S-LDTA143XLT1G

Bias Resistor Transistors
PNP Silicon Surface Mount Transistors
with Monolithic Bias Resistor Network



SOT23(TO-236)



1. FEATURES

- Built-in bias resistors enable the configuration of an inverter circuit without connecting exeernal 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 the device design easy.
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

2. Applications

- Inverter ,Interface, Driver.

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	R1(K)	R2(K)	Shipping
LDTA143XLT1G	L3	4.7	10	3000/Tape&Reel
LDTA143XLT3G	L3	4.7	10	10000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25ºC)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	VCEO	-50	V
Collector–Base Voltage	VCBO	-50	V
Collector Current	IC	-100	mA
Input Voltage	VIN	-20~+7	V

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR−5 Board (Note 1) @ TA = 25ºC Derate above 25ºC	PD	 225 1.8	 mW mW/ºC
Thermal Resistance, Junction–to–Ambient(Note 1)	RΘJA	556	ºC/W
Junction and Storage temperature	TJ,Tstg	−55~+150	°C

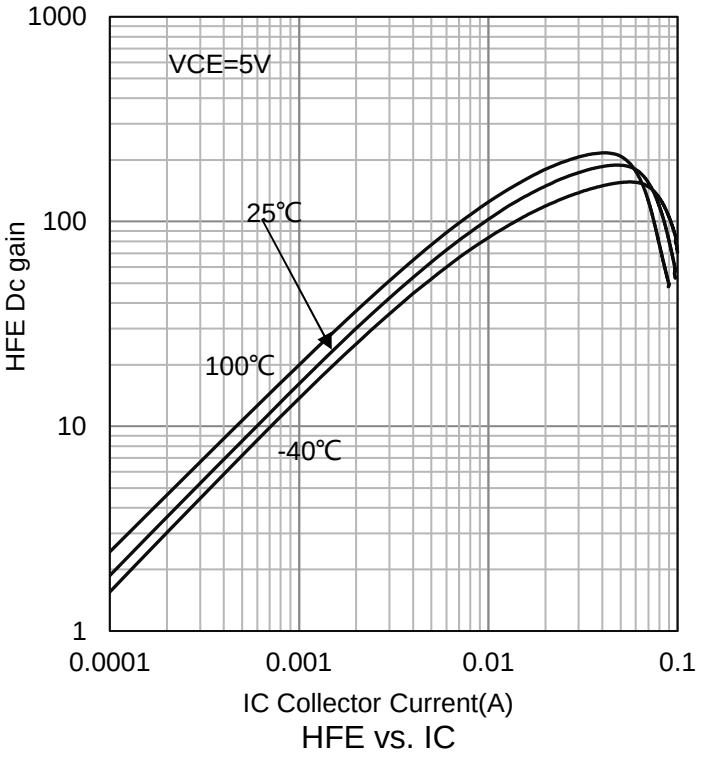
1. FR–5 = 1.0×0.75×0.062 in.

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

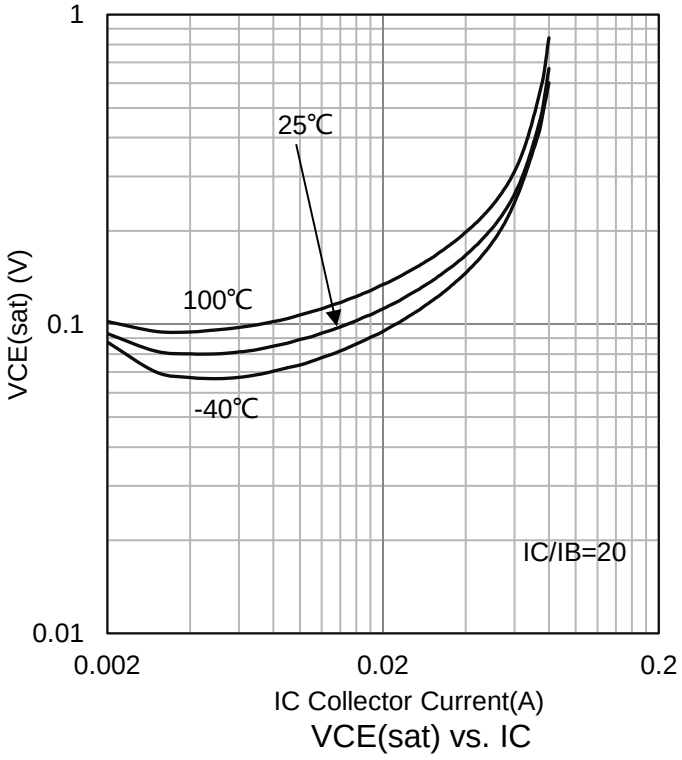
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = -2.0 mA, IB = 0)	VBR(CEO)	-50	-	-	V
Collector–Base Breakdown Voltage (IC = -10 μA, IE = 0)	VBR(CBO)	-50	-	-	V
Collector-Base Cutoff Current (VCB = -50 V, IE = 0)	ICBO	-	-	-100	nA
Emitter-Base Cutoff Current (VEB = -6.0 V, IC = 0)	IEBO	-	-	-1	mA
Collector-Emitter Cutoff Current (VCE = -50 V, IB = 0)	ICEO	-	-	-500	nA
DC Current Gain (IC = -10 mA, VCE = -5 V)	HFE	30	-	-	
Collector–Emitter Saturation Voltage (IC = -10 mA, IB = -0.3 mA)	VCE(sat)	-	-	-0.25	V
Input Voltage (off) (VCE = -5.0 V, IC = -100 μA)	Vi(off)	-	-	-0.3	V
Input Voltage (on) (VCE = -0.3 V, IC = -20 mA)	Vi(on)	-2.5	-	-	V
Output Voltage (on) (VCC = -5.0 V, VB = -5.5 V, RL =1.0KΩ)	VOL	-	-	-0.2	V
Output Voltage (off) (VCC = -5.0 V, VB = -0.25 V, RL =1.0KΩ)	VOH	-4.9	-	-	V
Input Resistor	R1	3.29	4.7	6.11	KΩ
Resistor Ratio	R2/R1	1.7	2.1	2.6	

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

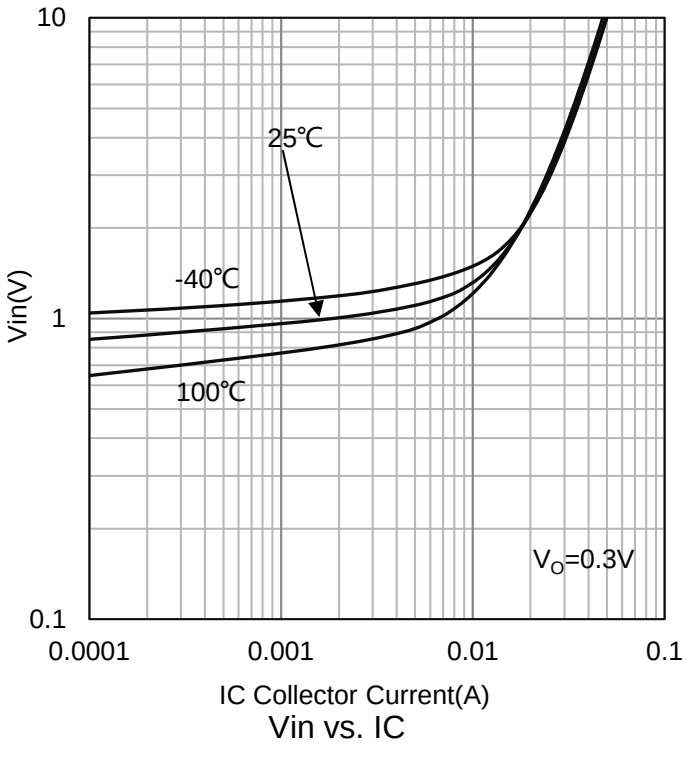
7.ELECTRICAL CHARACTERISTICS CURVES



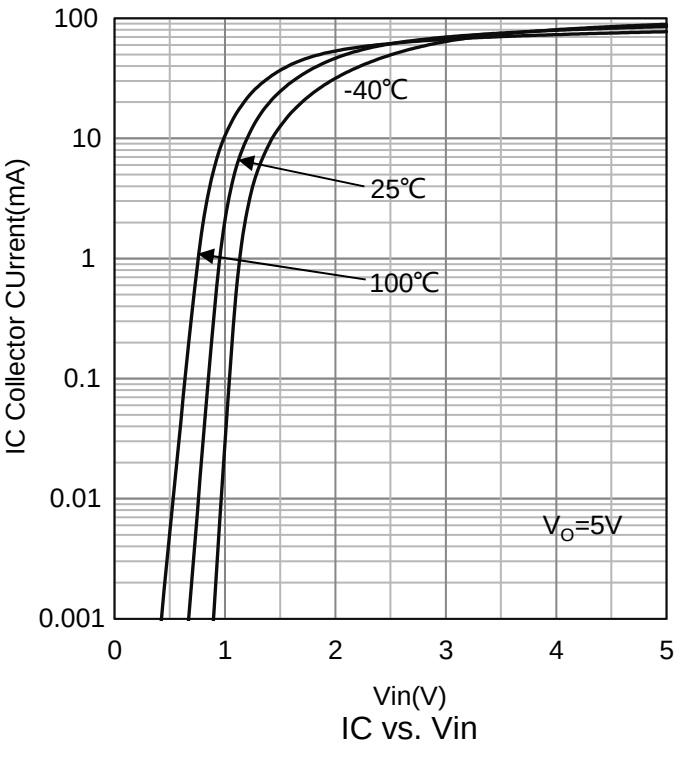
HFE vs. IC



VCE(sat) vs. IC

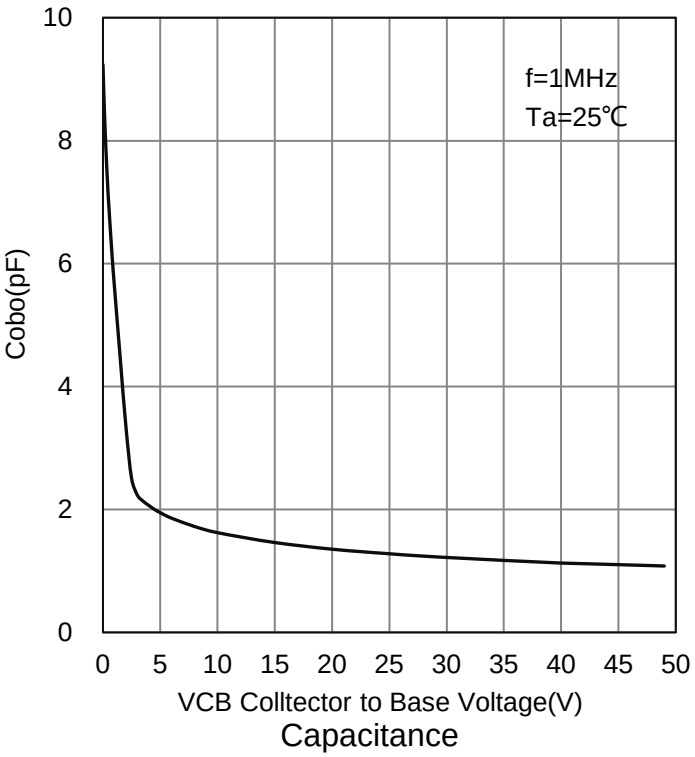


Vin vs. IC

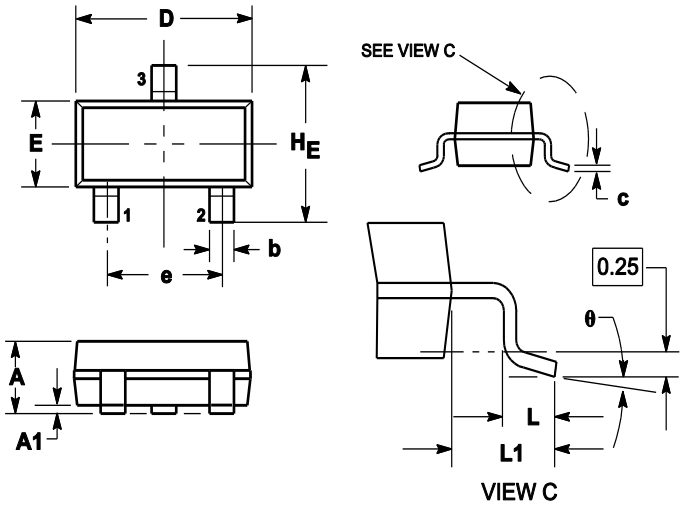


IC vs. Vin

7.ELECTRICAL CHARACTERISTICS CURVES(Con.)



8.OUTLINE AND DIMENSIONS

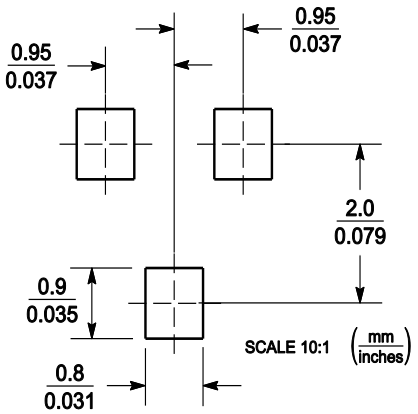


Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1	1.11	0.035	0.04	0.044
A1	0.01	0.06	0.1	0.001	0.002	0.004
b	0.37	0.44	0.5	0.015	0.018	0.02
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.9	3.04	0.11	0.114	0.12
E	1.20	1.3	1.4	0.047	0.051	0.055
e	1.78	1.9	2.04	0.07	0.075	0.081
L	0.10	0.2	0.3	0.004	0.008	0.012
L1	0.35	0.54	0.69	0.014	0.021	0.029
H_E	2.10	2.4	2.64	0.083	0.094	0.104
θ	0°	---	10°	0°	---	10°

9.SOLDERING FOOTPRINT



DISCLAIMER

- Before you use our Products, you are requested to carefully read this document and fully understand its contents. LRC shall not be in any way responsible or liable for failure, malfunction or accident arising from the use of any LRC's Products against warning, caution or note contained in this document.
- All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using LRC's Products,please confirm the latest information with a LRC sales representative.

单击下面可查看定价，库存，交付和生命周期等信息

>>LRC(乐山无线电)