

DTC144EKA

Rev.H Apr.-2025

/ Descriptions

SOT-23

NPN

Silicon NPN Digital transistor in a SOT-23 Plastic Package.

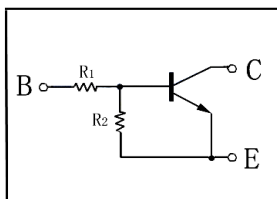
/ Features

With built-in bias resistors, simplify circuit design, reduce a quantity of parts and manufacturing process, HF Product.

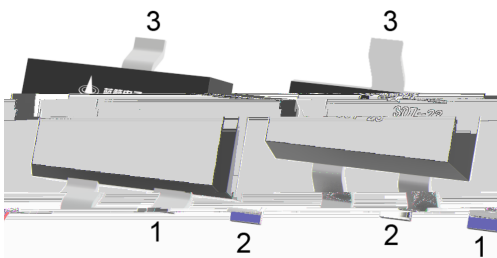
/ Applications

Switching, inverter circuit, interface circuit and driver circuit applications.

/ Equivalent Circuit



/ Pinning



PIN 1 Base

PIN 2 Emitter

PIN 3 Collector

/ hFE Classifications & Marking

Marking

H26

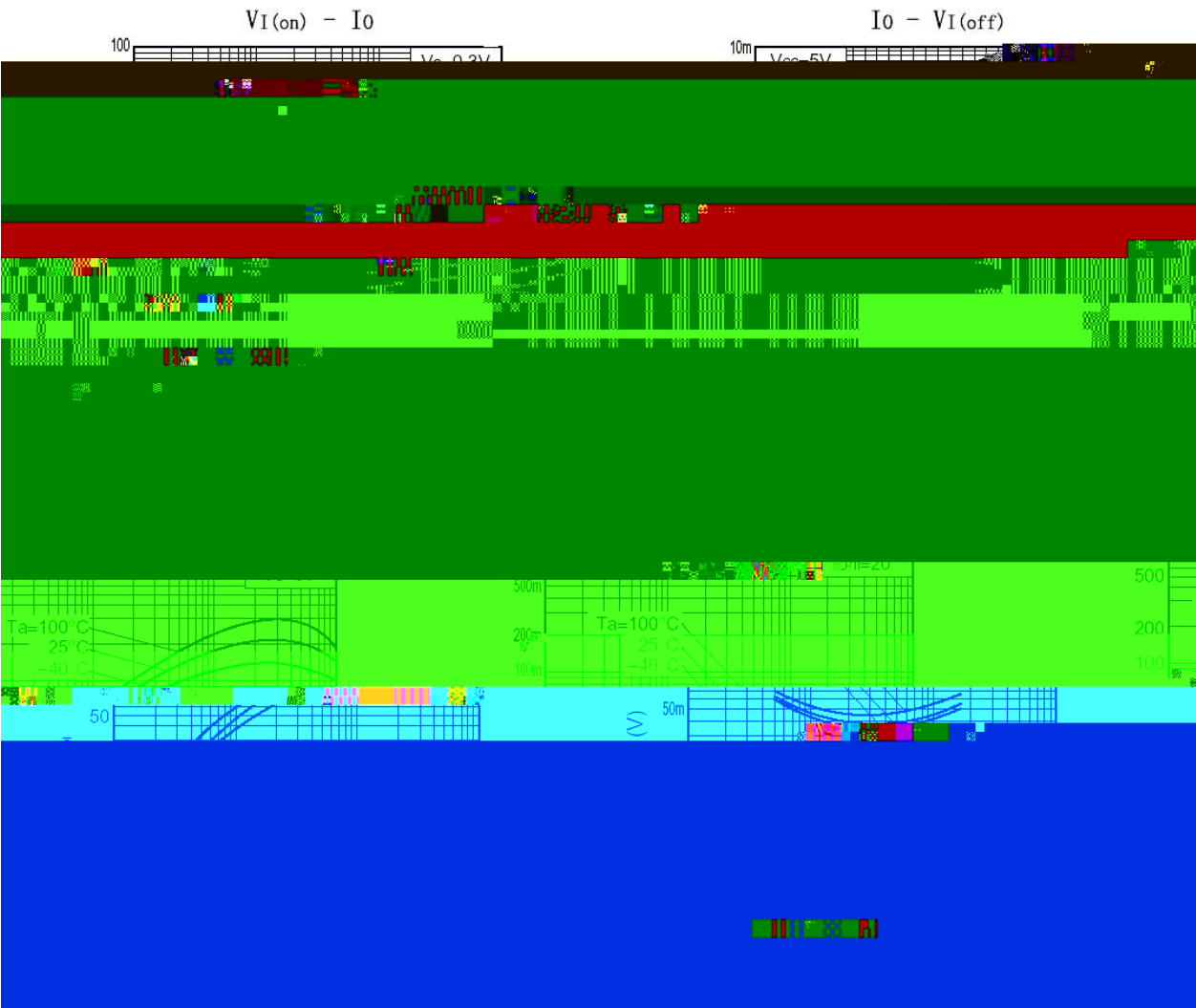
/ Absolute Maximum Ratings($T_a=25$)

Parameter	Symbol	Rating	Unit
Output Voltage	V_{CC}	50	V
Input Voltage	V_{IN}	40	V
		-10	V
Output Current	I_O	30	mA
Peak Collector Current	I_{CM}	100	mA
Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 150	$^{\circ}C$

/ Electrical Characteristics($T_a=25$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage	$V_{I(off)}$	$V_{CC}=5.0V$ $I_O=100\mu A$	0.5			V
	$V_{I(on)}$	$V_O=0.3V$ $I_O=2mA$			3	V
Output Voltage	$V_{O(on)}$	$I_O=10mA$ $I_I=0.5mA$			0.3	V
Input Current	I_I	$V_I=5.0V$			0.18	mA
Output Cut-off Current	$I_{O(off)}$	$V_{CC}=50V$ $V_I=0V$			0.5	μA
DC Current Gain	G_I	$V_O=5.0V$ $I_O=5.0mA$	68			
Transition Frequency	f_T	$V_{CE}=10V$ $I_E=-5.0mA$ $f=100MHz$		250		MHz
Resistance1	R_1		32.9	47	61.1	K Ω
Resistance Ratio	R_2/R_1		0.8	1	1.2	

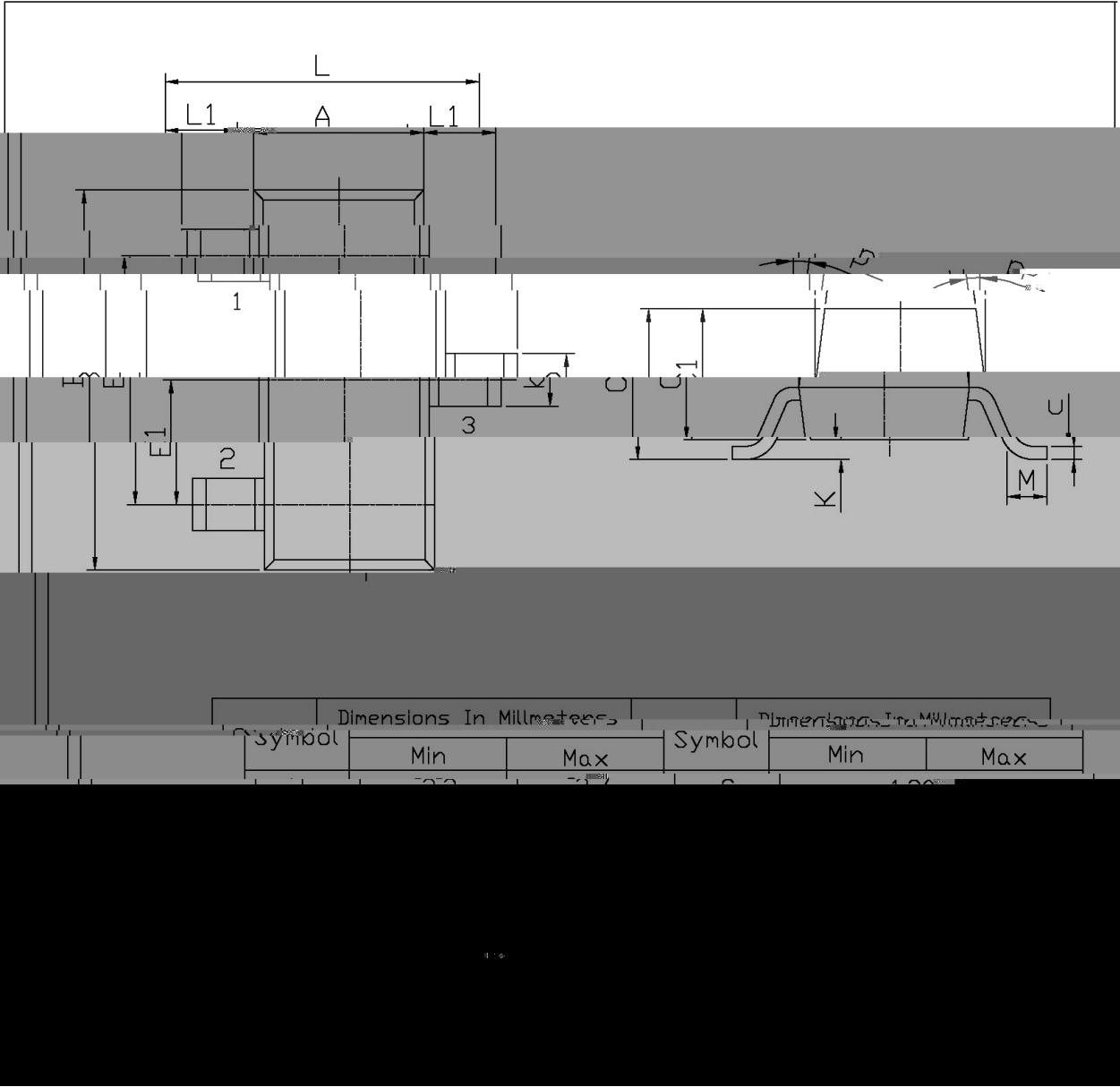
/ Electrical Characteristic Curve



/ Package Dimensions

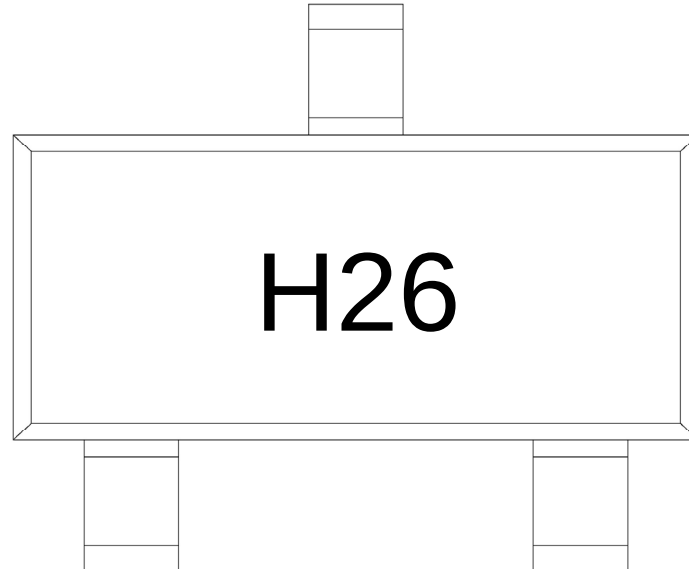
SOT-23

单位：mm





/ Marking Instructions



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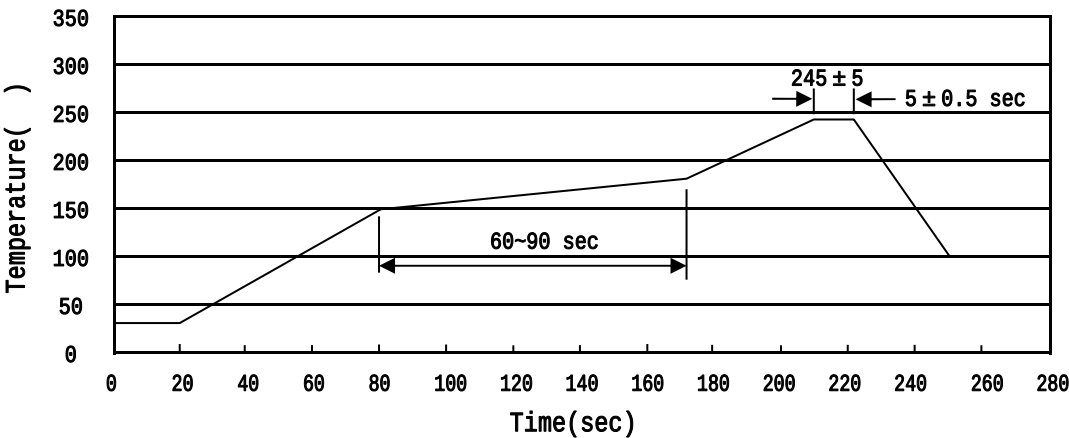
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Note:

H Company Code

26 Product Type Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5℃ Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices