

MMBT5089

RevF Apr.-2017

SOT-23

NPN

Silicon NPN transistor in a SOT-23 Plastic Package.

Low noise, high gain.

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	4.5	V
Collector Current	I_C	100	mA
Collector Power Dissipation	P_C	350	mW
Junction Temperature	T_J	-55 150	
Storage Temperature Range	T_{stg}	30	V

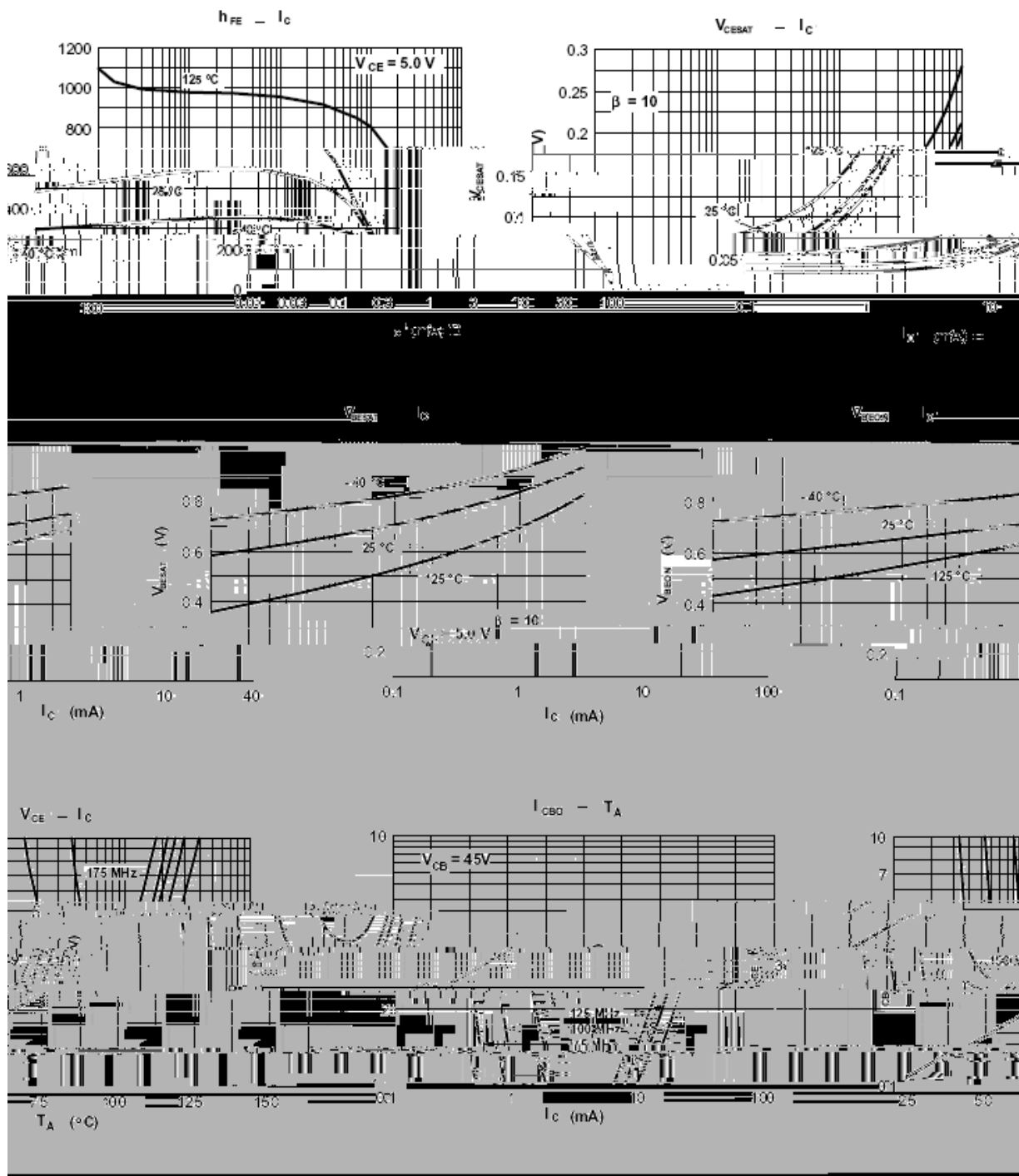
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=100\mu A$ $I_E=0$	30			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	25			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=15V$ $I_E=0$			50	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4.5V$ $I_C=0$			100	nA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5.0V$ $I_C=100\mu A$	400		1200	
	$h_{FE(2)}$	$V_{CE}=5.0V$ $I_C=1.0mA$	450			
	$h_{FE(3)}$	$V_{CE}=5.0V$ $I_C=10mA$	400			

Collector-Emitter Saturation Voltage

V

=4.5V 5920()4712JET57.3 35921731484.08 01499.2(1 T)-7084.0V40.58 324 0.4802 T62f217.38 378

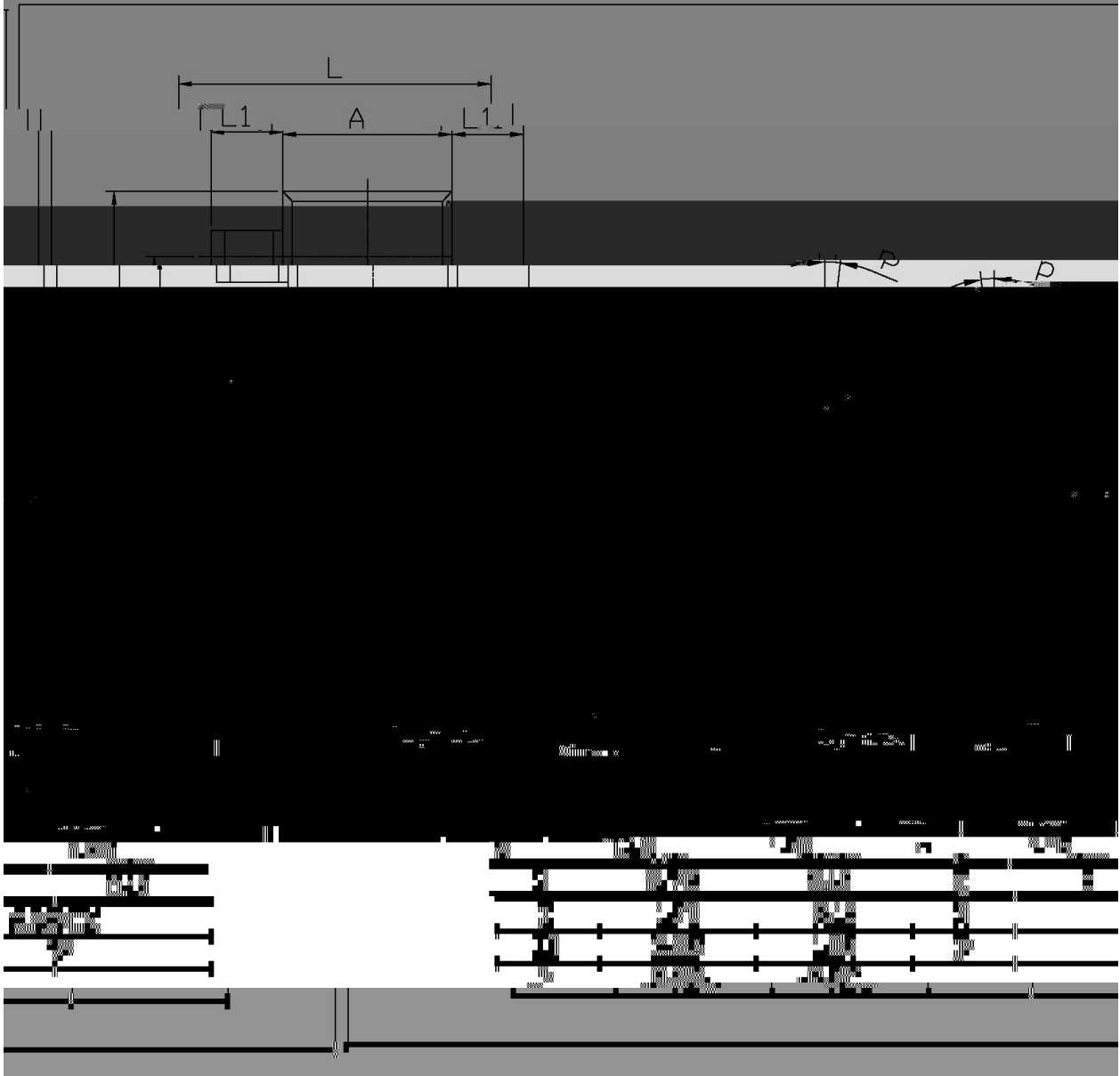
/ Electrical Characteristic Curve



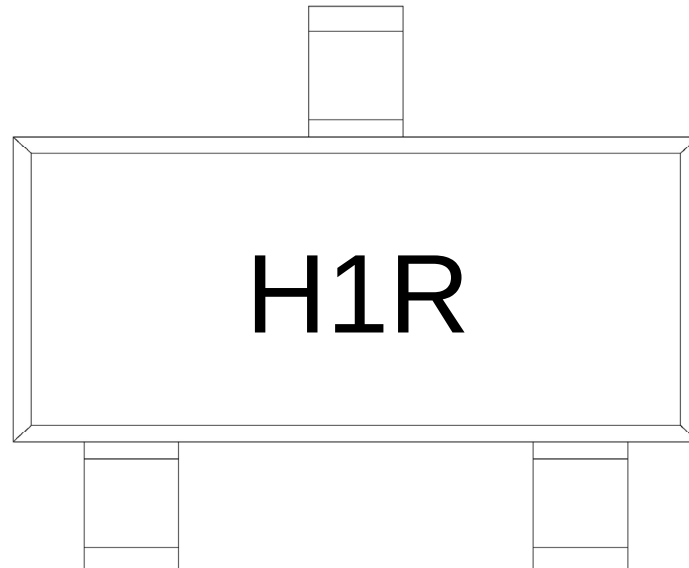
/ Package Dimensions

SOT-23

单位; mm



/ Marking Instructions



H

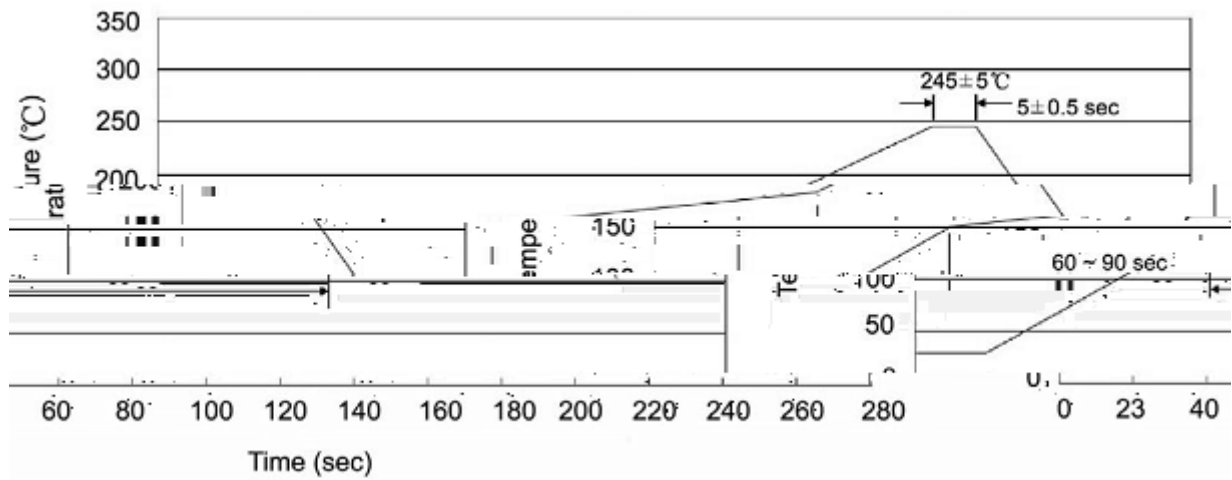
1R

Note:

H Company Code

1R Product Type

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



Note:

- | | | | | | |
|---|-------|-----|----|-----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , 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	Units					Dimension (unit mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205