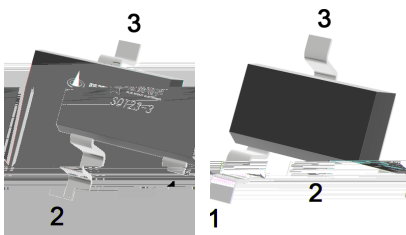
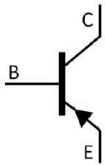


SOT23-3 PNP Silicon PNP transistor in a SOT23-3 Plastic Package.

, BR2SD1782MC

High breakdown, low $V_{CE(sat)}$, complements the BR2SD1782MC, HF Product.

Medium power amplifier applications.

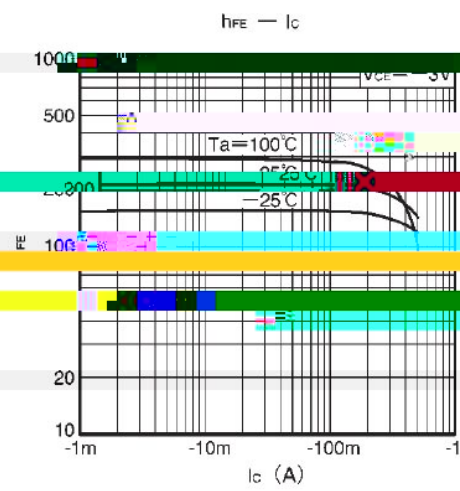
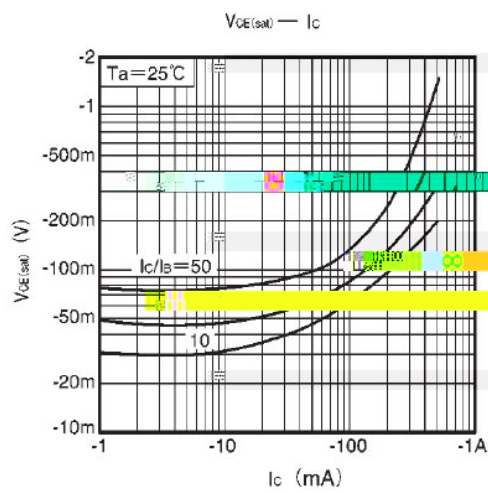
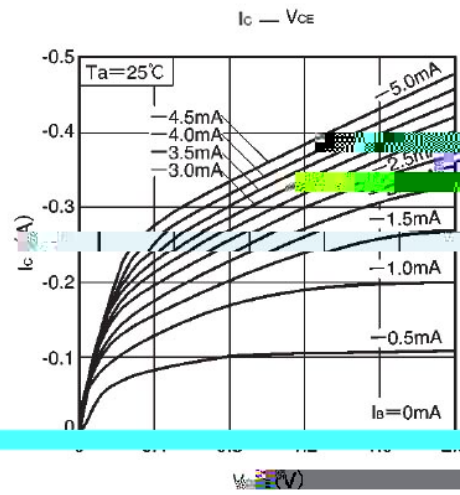
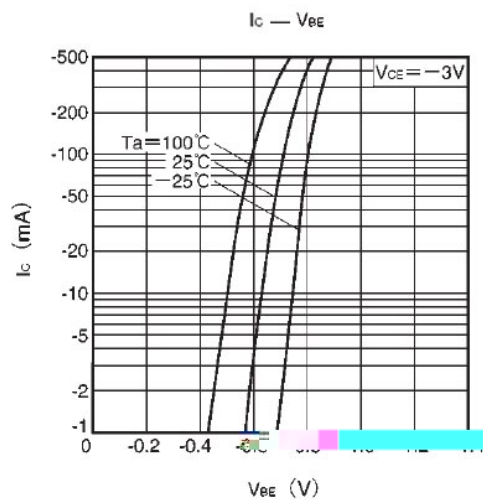


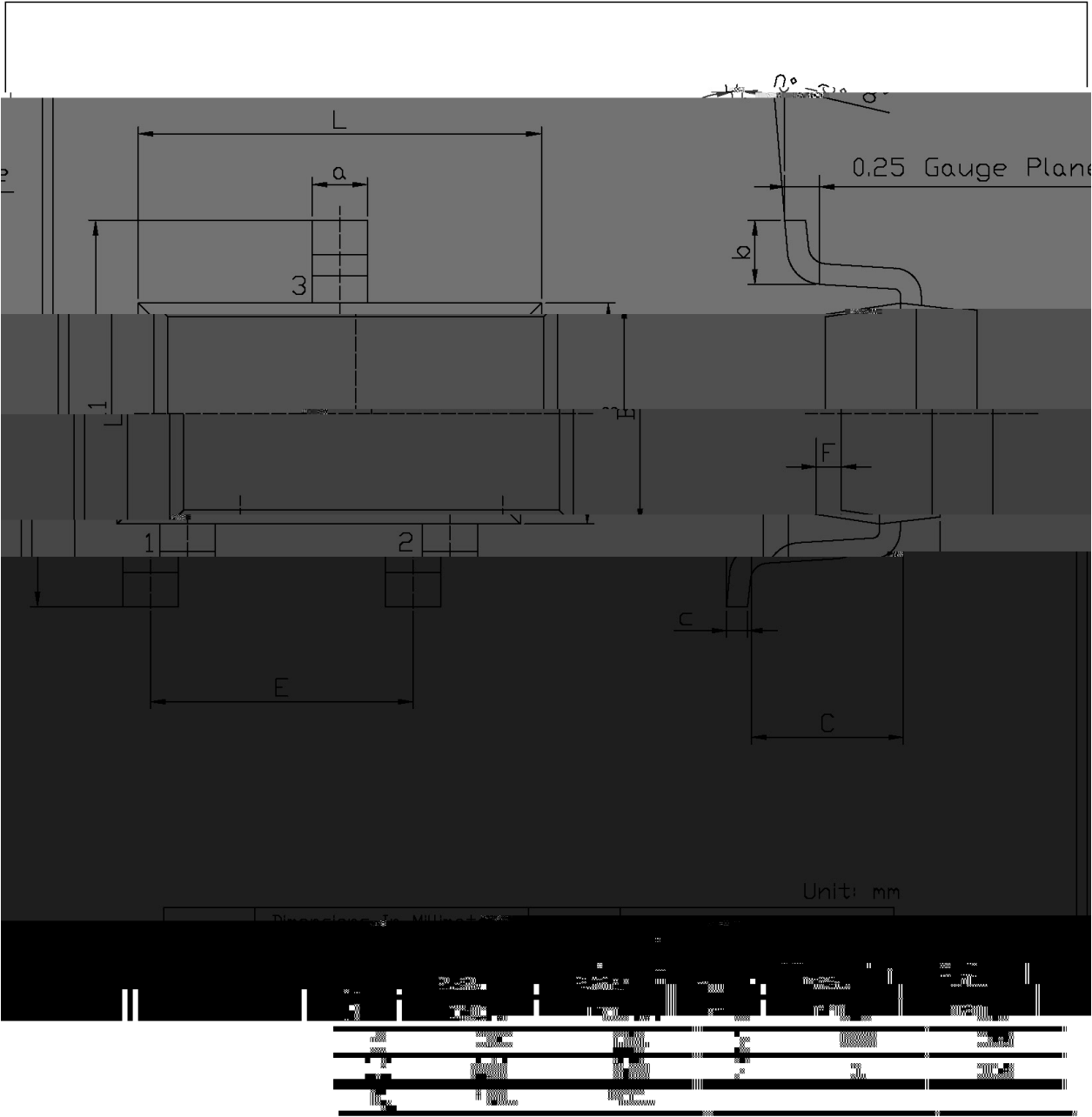
PIN1	Base	PIN 2	Emitter	PIN 3	Collector
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h _{FE} Classifications Symbol	Q	R
h _{FE} Range	120~270	180~390
Marking	HAKQ	HAKR

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-80	V
Collector to Emitter Voltage	V_{CEO}	-80	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-500	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C = -50\mu A$	-80			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C = -2mA$	-80			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E = -50\mu A$	-5			V
Collector Base Cut-Off Current	I_{CBO}	$V_{CB} = -50V$ $I_E = 0$			-0.5	μA
Collector Emitter Cut-Off Current	I_{CEO}	$V_{CE} = -65V$ $I_B = 0$			-5	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB} = -4.0V$ $I_C = 0$			-0.5	μA
DC Current Gain	h_{FE}	$V_{CE} = -3.0V$ $I_C = -100mA$	120		390	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500mA$ $I_B = -50mA$			-0.5	V
Transition Frequency	f_T	$I_C = -50mA$ $f = 100MHz$ $V_{CE} = -10V$		180		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V$ $I_E = 0$ $f = 1.0MHz$		11		pF





2023



H

AK

R h_{FE}

Note:

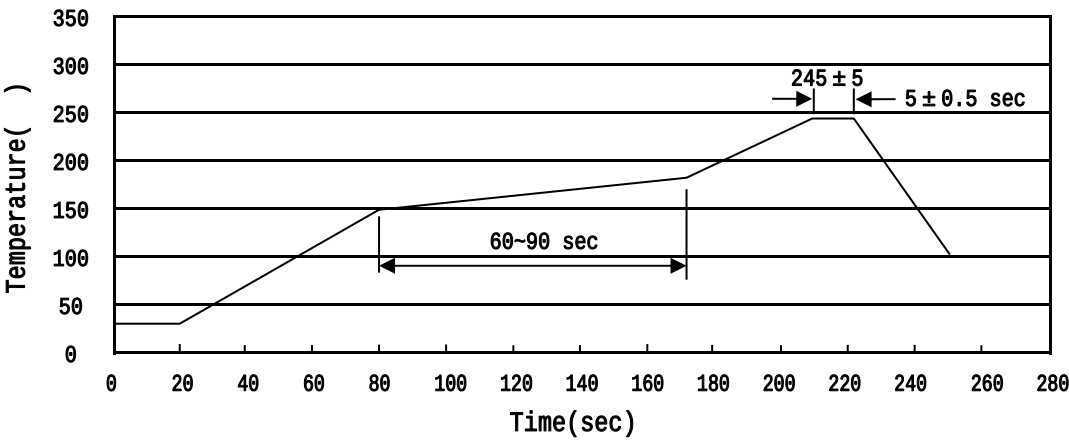
H: Company Code

AK: Product Type Code

R: h_{FE} Classifications Symbol 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. |

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

/ REEL

Package Type	Units					Dimension (unit mm ³)		
SOT-23-3	3,000	10	30,000	4	120,000	7 ×8	210×205×205	445×230×435