

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

High power gain, recommended for FM IF,OSC stage and AM CONV.IF stage.

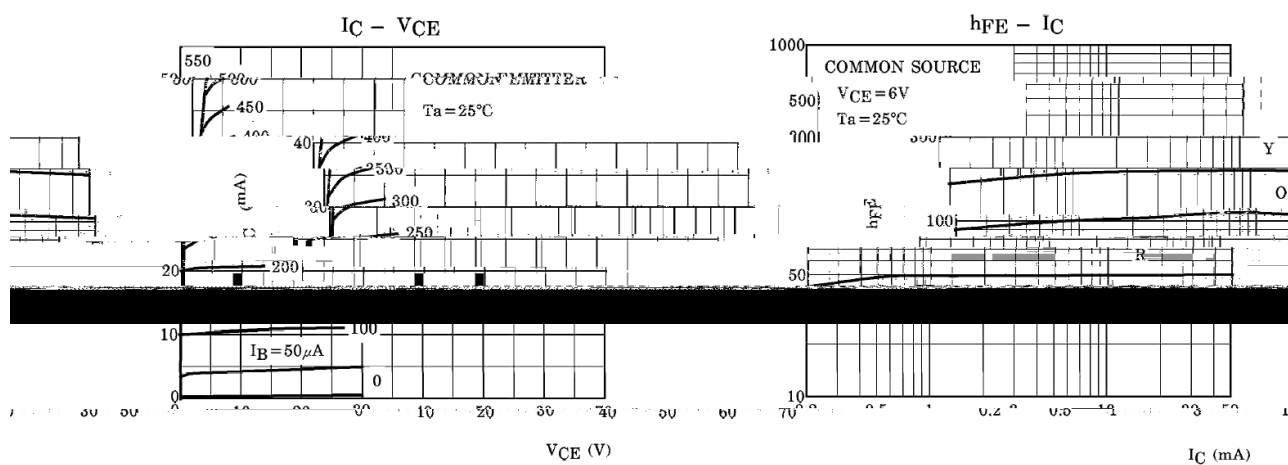
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	35	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	4.0	V
Collector Current	I_C	50	mA
Base Current	I_B	10	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

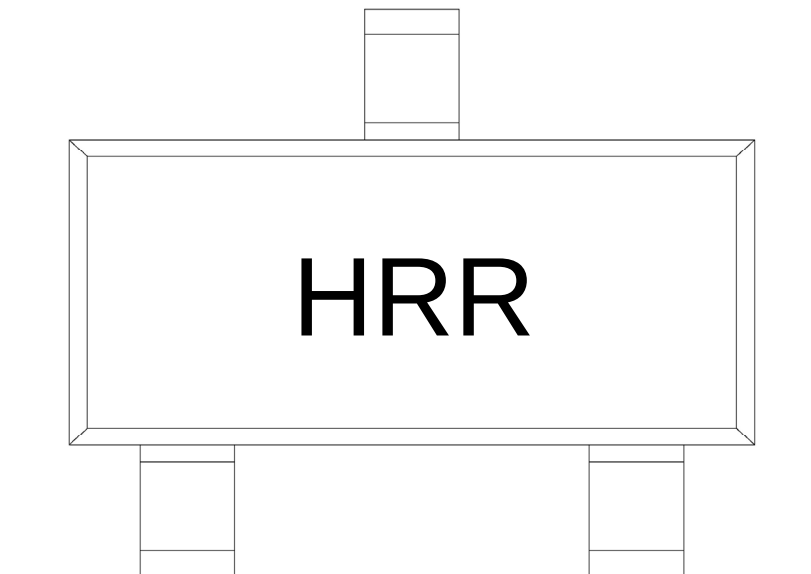
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=35V$ $I_E=0$			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=4.0V$ $I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=12V$ $I_C=2.0mA$	40		240	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA$ $I_B=1.0mA$			0.4	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10mA$ $I_B=1.0mA$			1.0	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=1.0mA$	100		400	MHz
Reverse Transfer Capacitance (Common Emitter)	C_{ob}	$V_{CE}=10V$ $I_E=0$ $f=1.0MHz$		2.0	3.2	pF
Conversion gain	G_{pe}	$V_{CE}=6.0V$ $I_E=-1.0mA$ $f=10.7MHz$	27	30	33	dB
Collector to Base Time Constant	$C_{c.rbb'}$	$V_{CE}=10V$ $I_E=-1.0mA$ $f=30MHz$			50	pS

/ Electrical Characteristic Curve



/ Marking Instructions



H

R

R h_{FE}

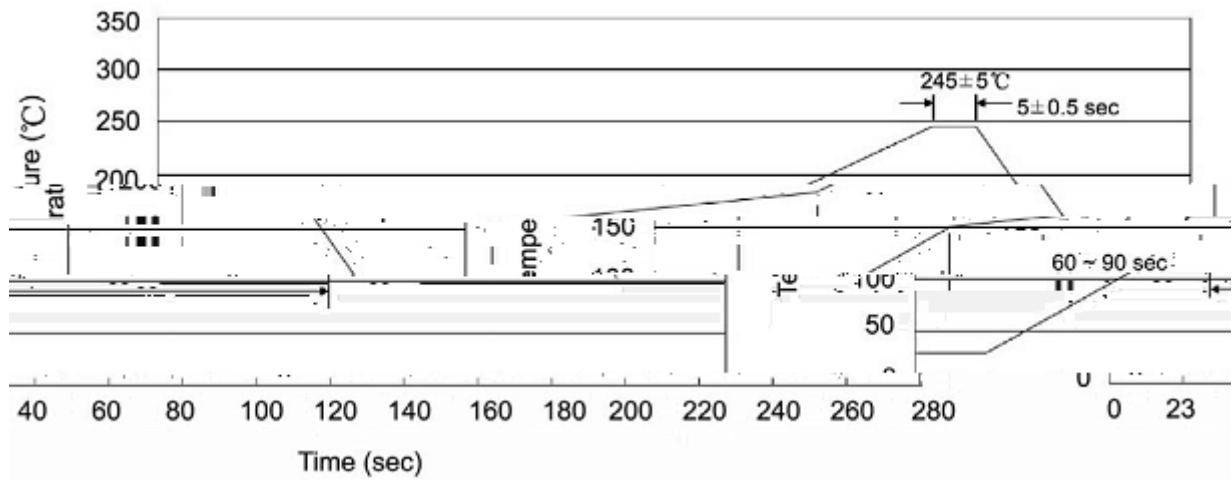
Note:

H Company Code

R Product Type Code

R h_{FE} Classifications Symbol Code

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



Note:

- 1

25 150

60 90sec;

2

245±5

5±0.5sec;

3

2 10 /sec.
- 1.Preheating:25~150 , Time:60~90sec.

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

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering ④ 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)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱

/ Notices