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.

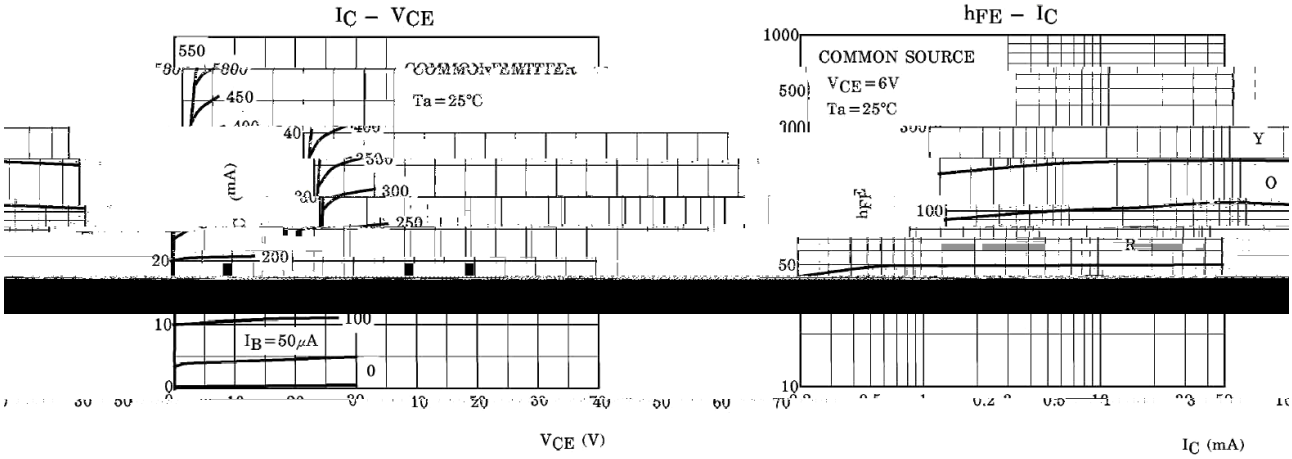
/ Absolute Maximum Ratings(Ta=25)

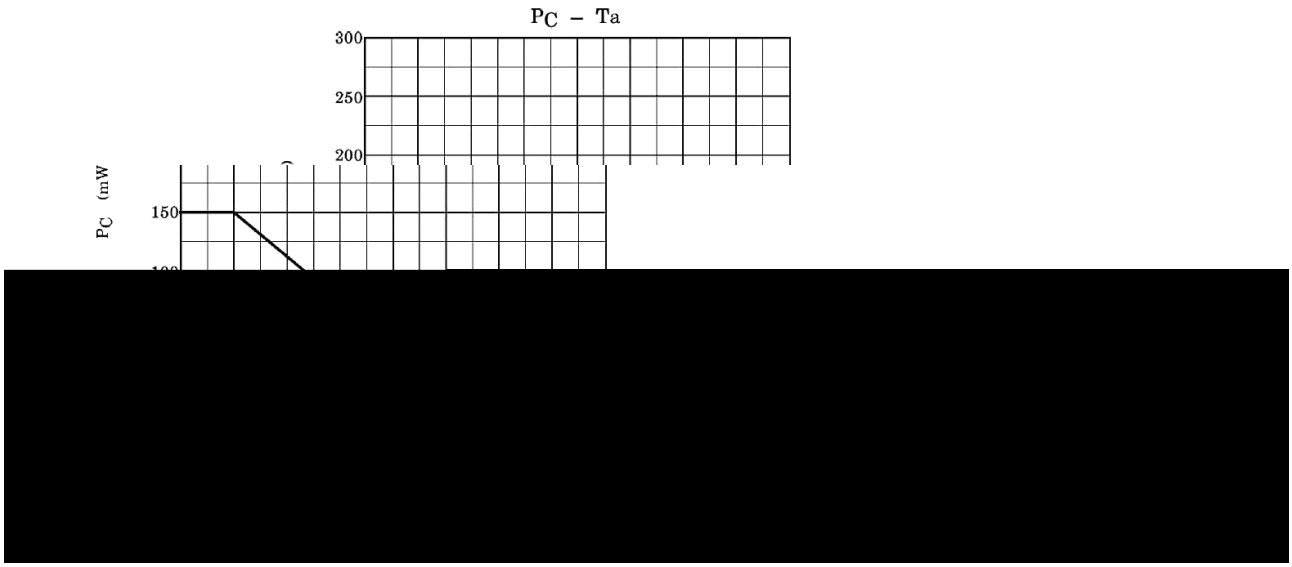
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	35	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	4.0	V
Collector Current	I_C	50	mA
Base Current	I_B	10	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}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

/ Electrical Characteristics(Ta=25)

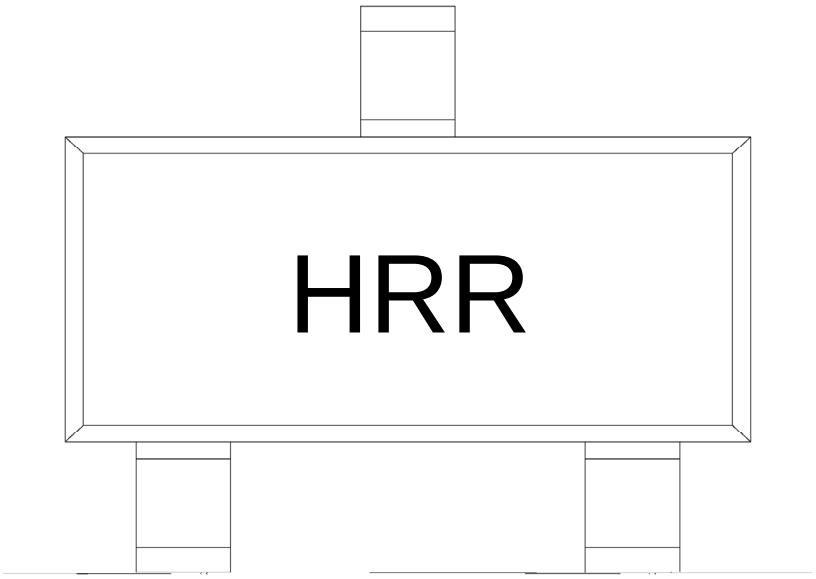
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=35V I_E=0			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=4.0V I_C=0			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=12V I_c=2.0mA	40		240	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10mA I_B=1.0mA			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

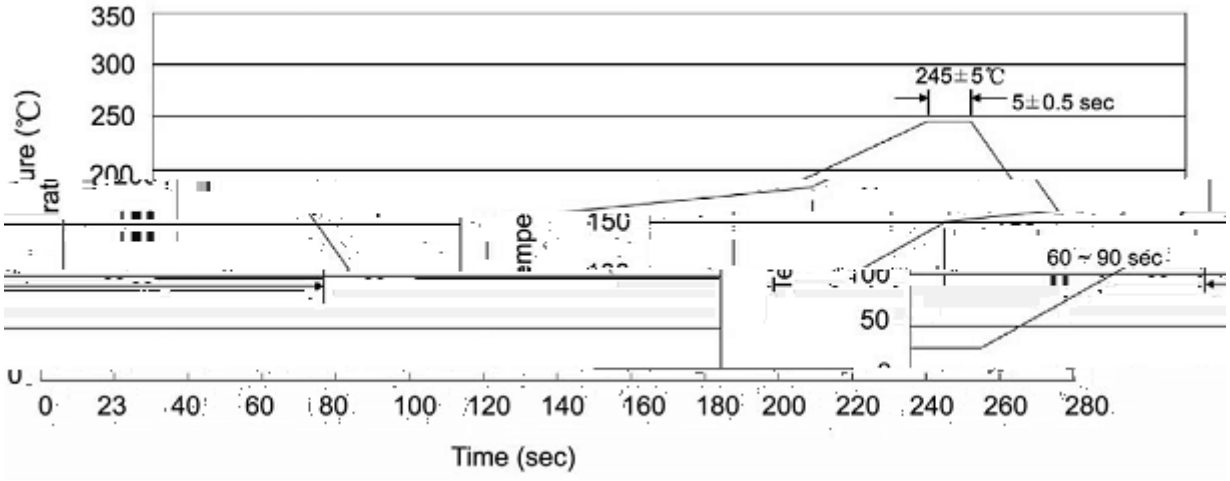
R

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 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