

/ Descriptions

KF \$,) GE G Silicon PNP transistor in a TO-252 Plastic Package.

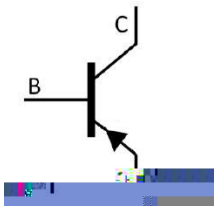
/ Features

) J ; (. - ' Low $V_{CE(sat)}$, complements the 2SD1760.

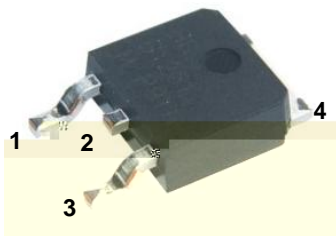
/ Applications

Power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2,4 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	P	Q	R
h_{FE} Range	82 180	120 270	180 390

/ Absolute Maximum Ratings(Ta=25)

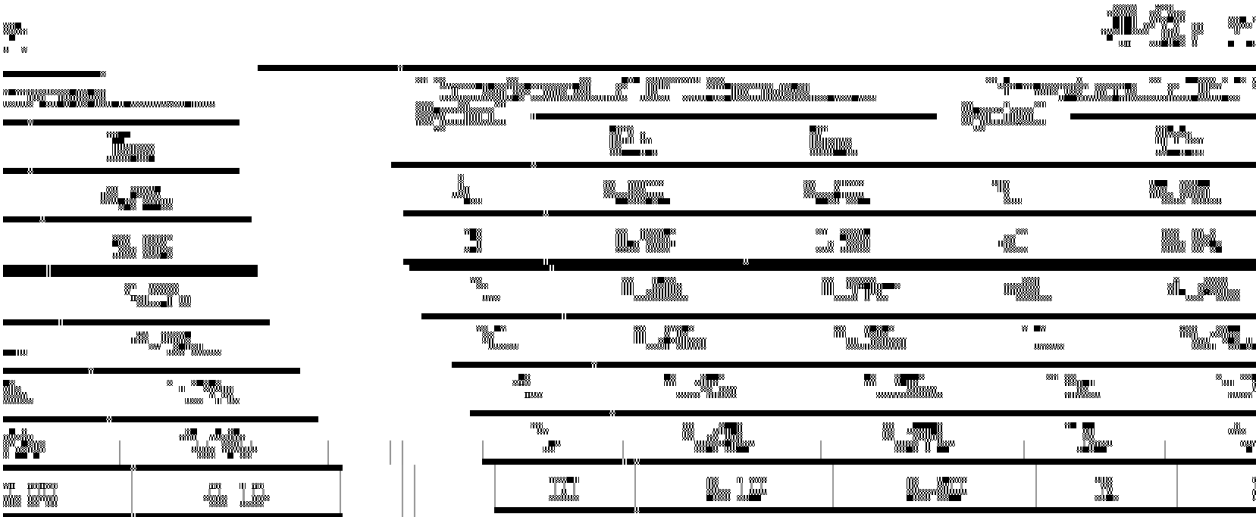
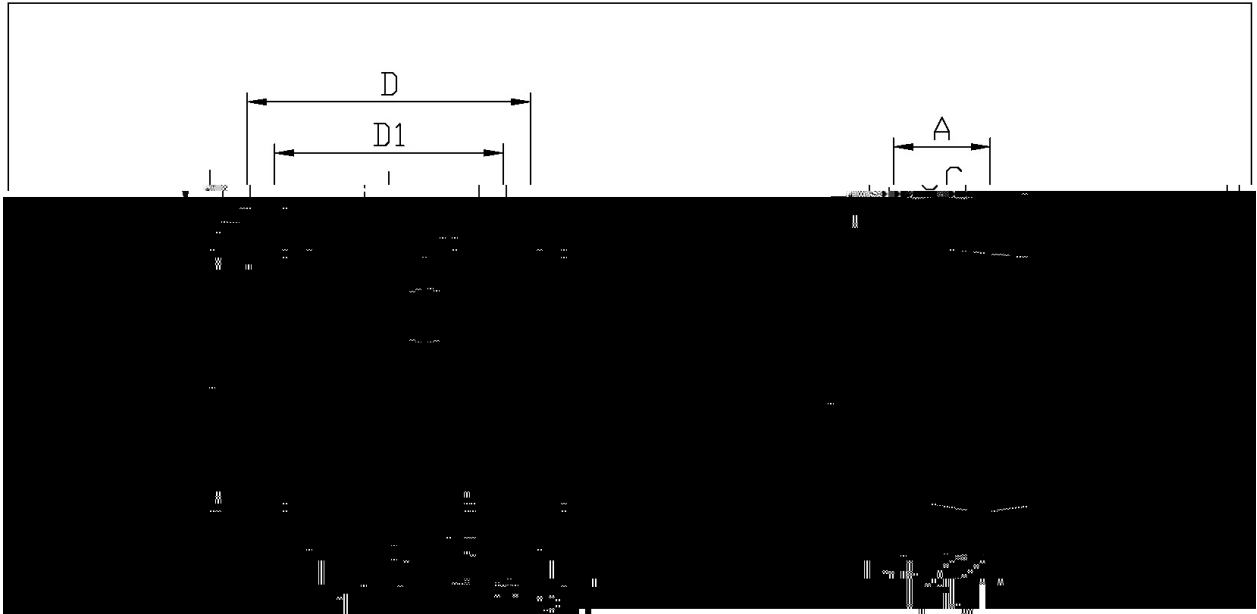
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-50	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-3.0	A
Collector Power Dissipation	P_C	1.0	W
Collector Power Dissipation	$P_C(T_c=25)$	15	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

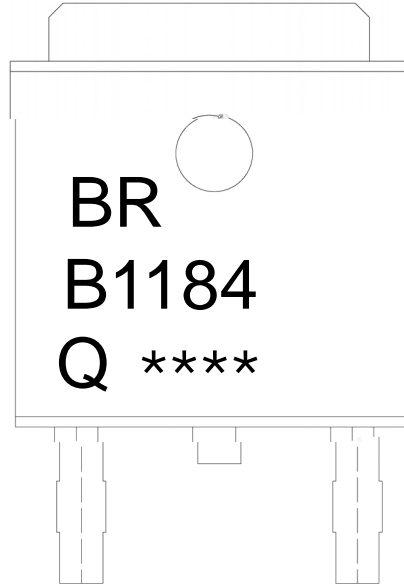
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-50 A \quad I_E=0$	-60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-1.0mA \quad I_B=0$	-50			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-50 A \quad I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-40V \quad I_E=0$			-1.0	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-4.0V \quad I_C=0$			-1.0	A
DC Current Gain	h_{FE}	$V_{CE}=-3.0V \quad I_C=-0.5A$	82		390	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-2.0A \quad I_B=-0.2A$			-1.0	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-1.5A \quad I_B=-0.15A$			-1.2	V
Transition Frequency	f_T	$V_{CE}=-5.0V \quad I_C=-0.5A$ $f=30MHz$		70		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V \quad I_E=0$ $f=1.0MHz$		50		pF

2SB1184
Rev.E May.-2016

/ Package Dimensions



/ Marking Instructions



BR

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H1 h_{FE}

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Note:

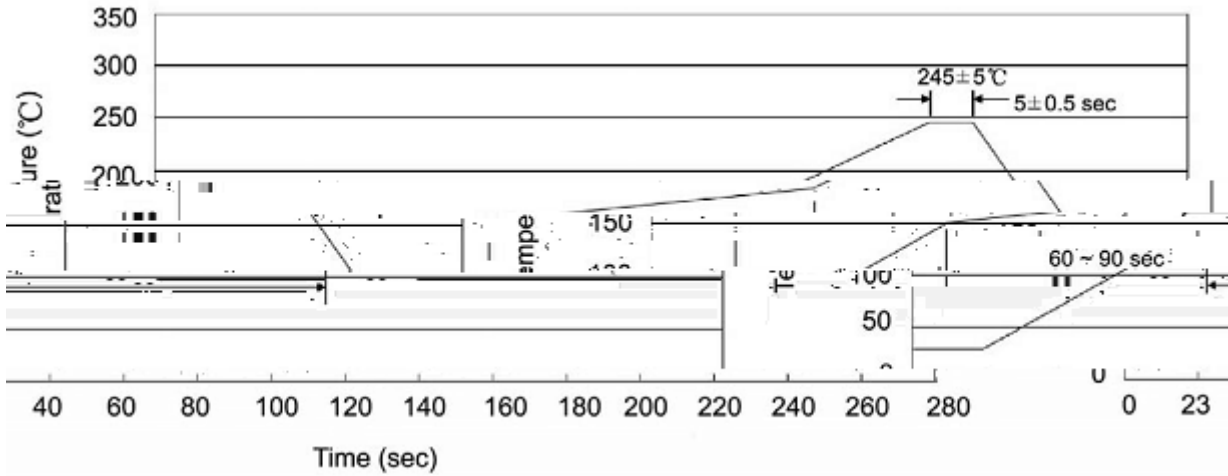
BR: Company Code

B1184: Product Type.

Q: h_{FE} Classifications Symbol

****: Lot No. Code, code change with Lot No.

() / 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
TO-252	2,500	2	5,000	5	25,000	13 ×16	360×360×50	385×257×392

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices