/ Descriptions

TO-252 PNP Silicon PNP transistor in a TO-252 Plastic Package.

/ Features

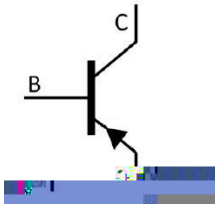
hFE

Excellent hFE linearity, low $V_{CE(sat)}$, high P_C.

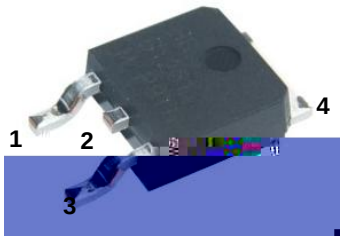
/ Applications

Audio frequency amplifier and switching, especially in hybrid integrated circuits applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2,4 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

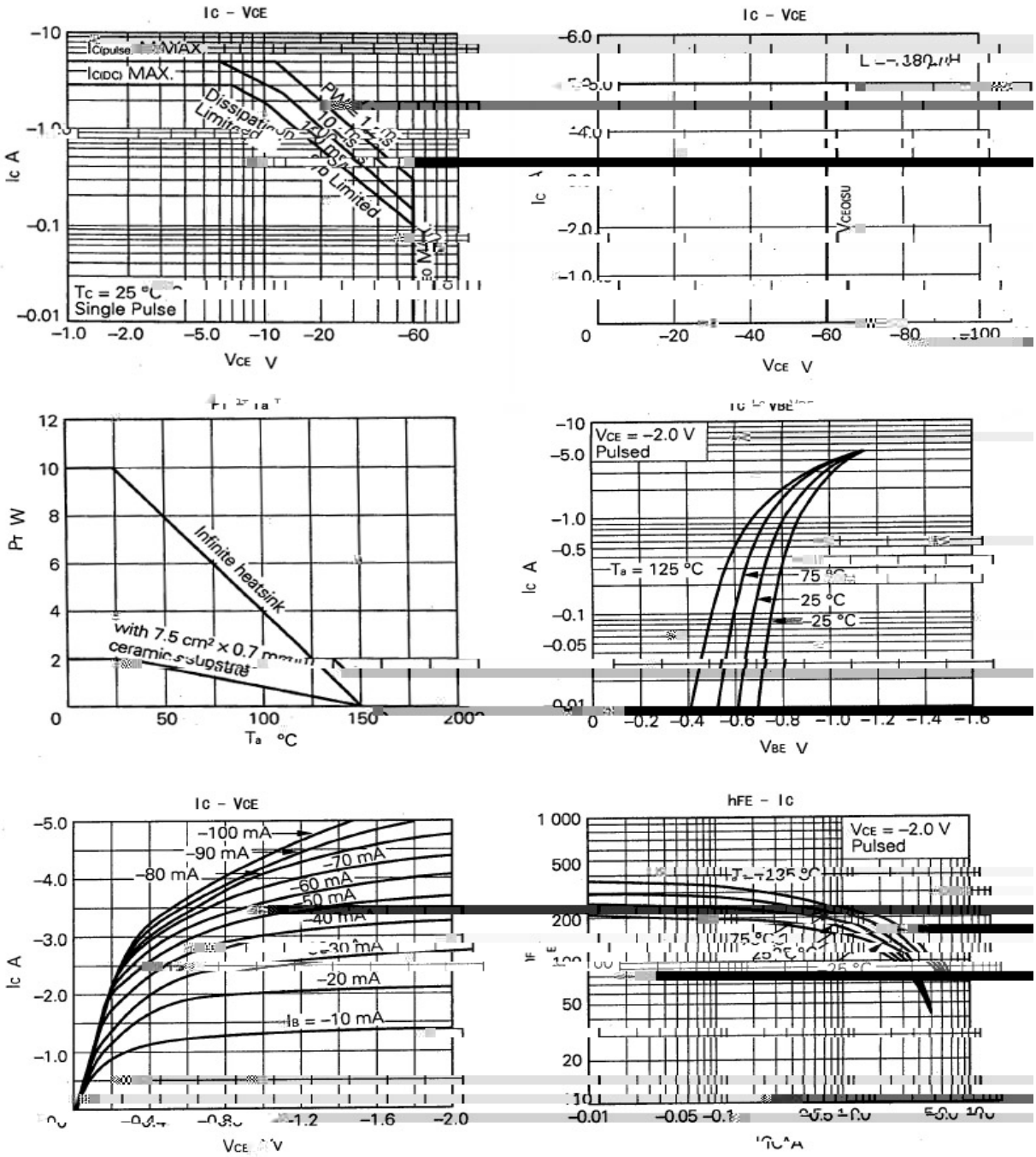
h_{FE} Classifications Symbol	M	L	K
h_{FE} Range	100 200	160 320	200 400

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-7.0	V
Collector Current - Continuous	I_C	-3.0	A
Collector Power Dissipation*	*P_C	2.0	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55...150	

* 7.5×7.5×0.7mm
*When mounted on a 7.5×7.5×0.7mm ceramic board.

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=-0.1mA I_E=0	-60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-1.0mA I_B=0	-60			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=-0.1mA I_C=0	-7.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-60V I_E=0			-10	A
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-7.0V I_C=0			-10	A
DC Current Gain	$h_{FE(1)}$	V_{CE}=-2.0V I_C=-600mA	100		400	
	$h_{FE(2)}$	V_{CE}=-2.0V I_C=-200mA	60			
	$h_{FE(3)}$	V_{CE}=-2.0V I_C=-2.0A	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-1.5A I_B=-150mA			-0.3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=-1.5A I_B=-150mA			-1.2	V
Transition Frequency	f_T	V_{CE}=-5.0V I_C=-1.5A		50		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V I_E=0 f=1.0MHz		40		pF
Turn-On Time	t_{on}	V_{CC}=-10V I_C=-1.0A I_{B1}=-I_{B2}				

/ Electrical Characteristic Curve

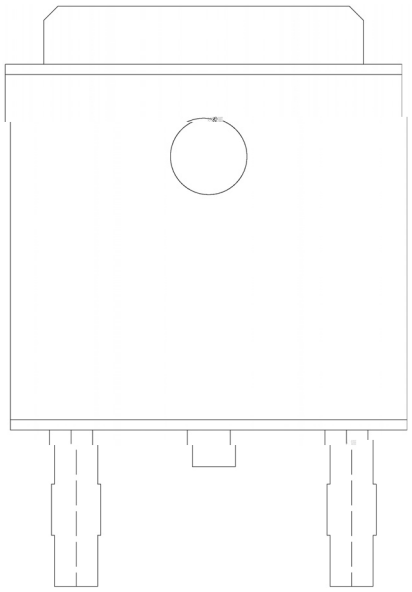


/ Package Dimensions

D1	5.10	5.50	K	

TO-252

/ Marking Instructions



BR

B1261

M: h_{FE}

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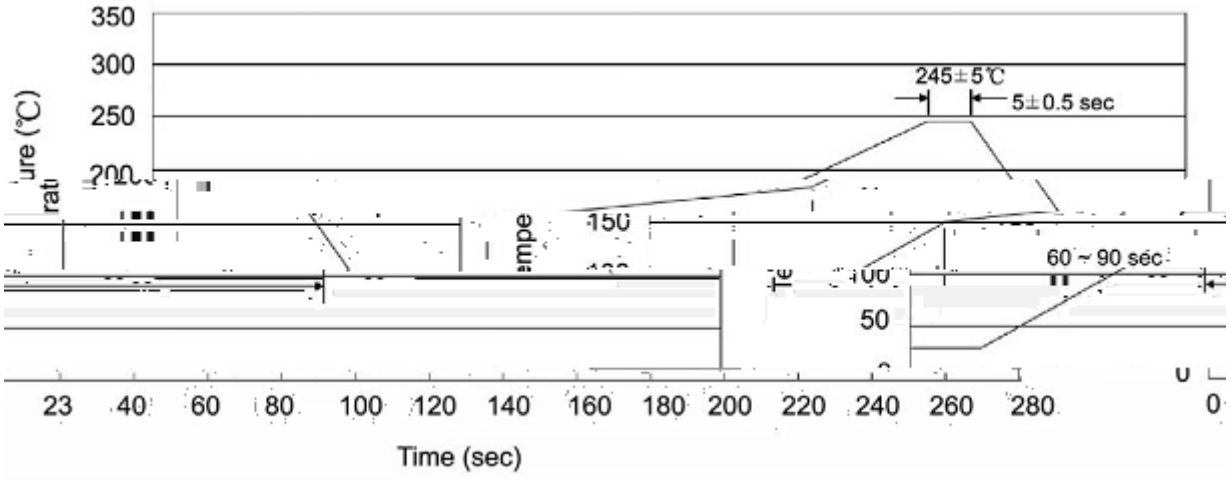
Note:

BR:

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

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180