

/ Descriptions

Silicon PNP transistor in a TO-220F Plastic Package.

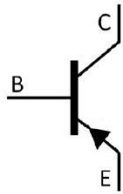
/ Features

Low $V_{CE(sat)}$, wide SOA, complementary pair with 2SD2395.

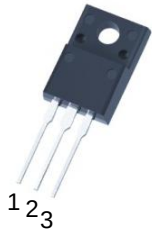
/ Applications

Voltage regulator, DC-DC converter and relay driver, audio frequency power amplifier output.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	E	F
h_{FE} Range	100~200	160~320

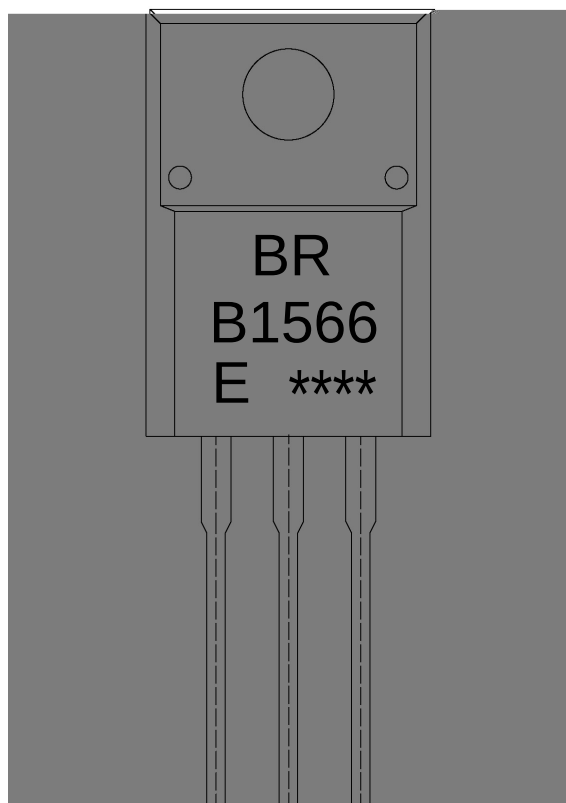
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

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	2.0	W
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	25	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-50\mu\text{A}$	-60			V
Collector to Base Breakdown Voltage	V_{CEO}	$I_C=-1.0\text{mA}$	-50			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-50\mu\text{A}$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-60\text{V}$ $I_E=0$			-1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5.0\text{V}$ $I_C=0$			-1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=-3.0\text{V}$ $I_C=-500\text{mA}$	100		320	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-2.0\text{A}$ $I_B=-0.2\text{A}$			-1.0	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-2.0\text{A}$ $I_B=-0.2\text{A}$			-1.5	V
Transition Frequency	f_T	$V_{CE}=-5.0\text{V}$ $I_C=500\text{mA}$ $f=5.0\text{MHz}$		60		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}$ $I_E=0$ $f=1.0\text{MHz}$		40		pF

/ Marking Instructions



Note:

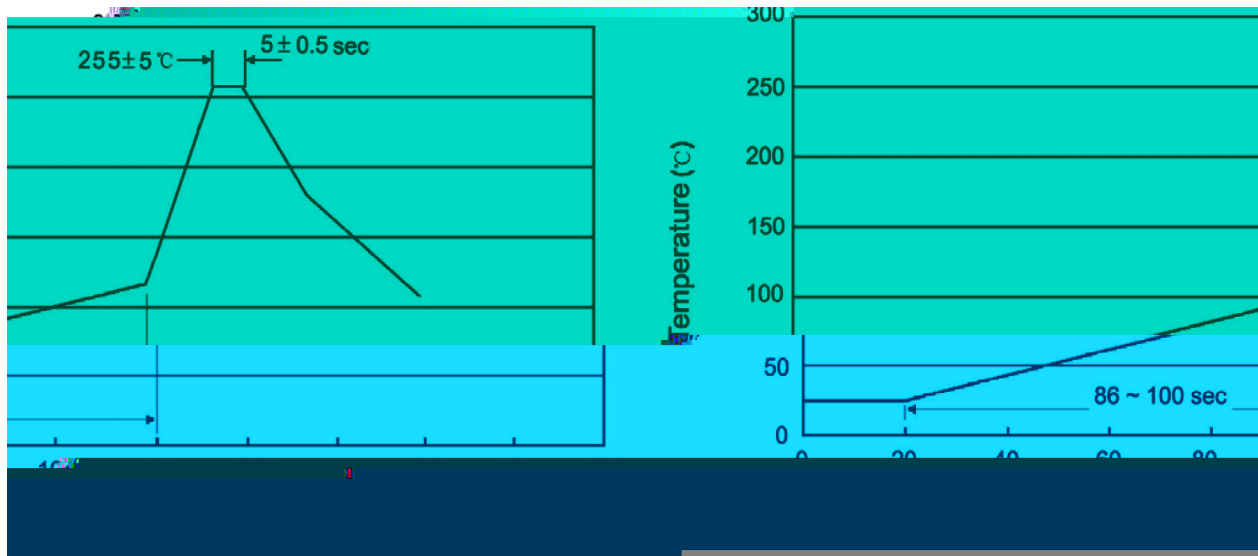
BR: Company Code.

B1566: Product Type.

E: h_{FE} Classifications Symbol

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

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

1. Preheating: 25~150 , Time: 60~90sec.
2. Peak Temp.: 255 ± 5 , Duration: 5 ± 0.5sec.
3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

270 ± 5 10 ± 1 sec. Temp.: 270±5 Time: 10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units					Dimension (unit mm ³)		
	Units/Bag	Bags/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ 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-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices