

/ Descriptions

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

/ Features

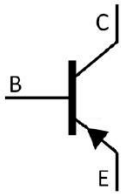
, 2SD2395

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

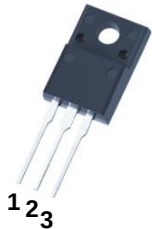
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1	Base	PIN 2	Collector	PIN 3	Emitter
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/ h_{FE} Classifications & Marking

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

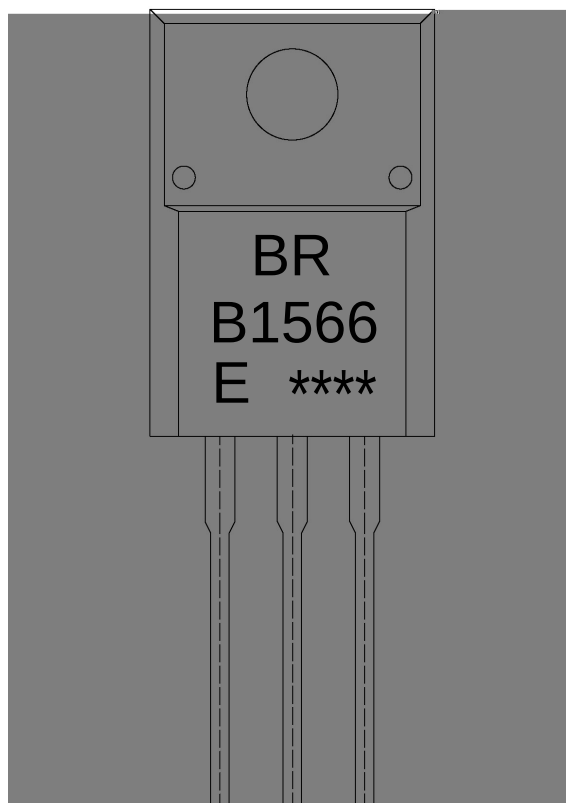
/ Absolute Maximum Ratings(Ta=25)

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	2.0	W
Collector Power Dissipation	$P_C(T_c=25)$	25	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}	$I_C=-50\mu A$	-60			V
Collector to Base Breakdown Voltage	V_{CEO}	$I_C=-1.0mA$	-50			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-50\mu A$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-60V$ $I_E=0$			-1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=-3.0V$ $I_C=-500mA$	100		320	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-2.0A$ $I_B=-0.2A$			-1.0	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-2.0A$ $I_B=-0.2A$			-1.5	V
Transition Frequency	f_T	$V_{CE}=-5.0V$ $f=5.0MHz$ $I_C=500mA$		60		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V$ $f=1.0MHz$ $I_E=0$		40		pF

/ Marking Instructions



BR

B1566

E: h_{FE}

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