

# 2SB1399

Silicon PNP Triple Diffused

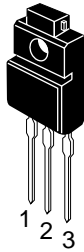
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## Application

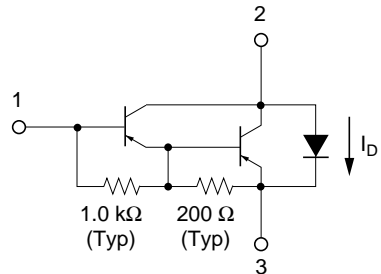
Low frequency power amplifier

## Outline

TO-220FM



- 1. Base
- 2. Collector
- 3. Emitter



## Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	-120	V
Collector to emitter voltage	$V_{CEO}$	-120	V
Emitter to base voltage	$V_{EBO}$	-7	V
Collector current	$I_C$	-10	A
Collector peak current	$I_{C(peak)}$	-15	A
Collector power dissipation	$P_C$	2	W
	$P_C^{*1}$	30	
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C
C to E diode forward current	$I_D^{*1}$	10	A

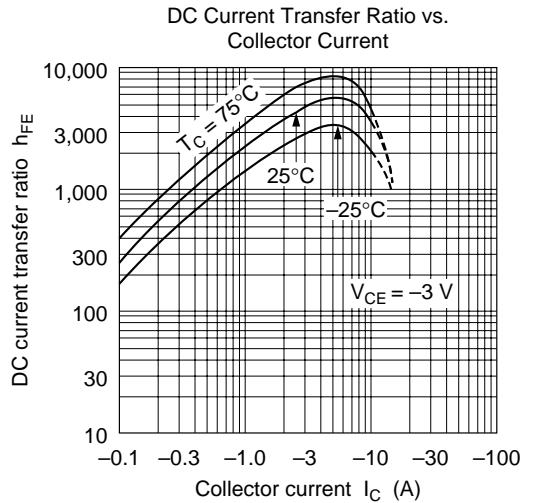
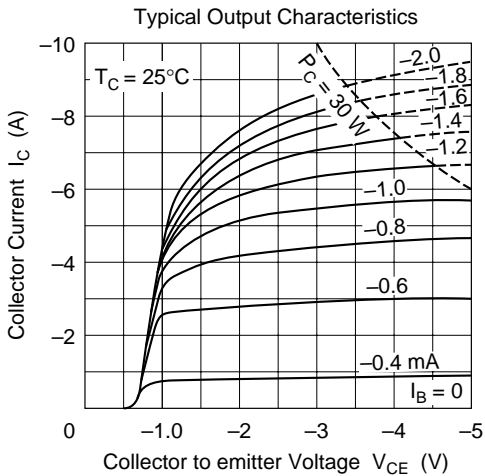
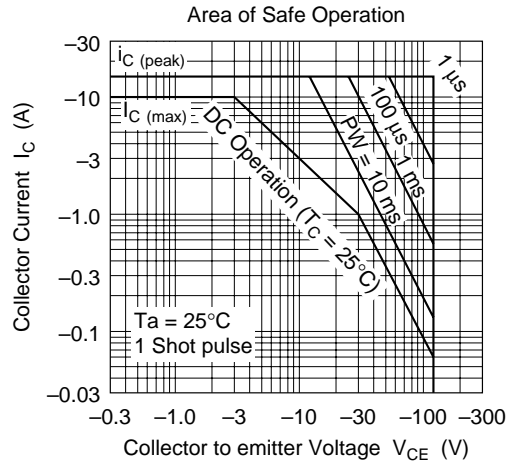
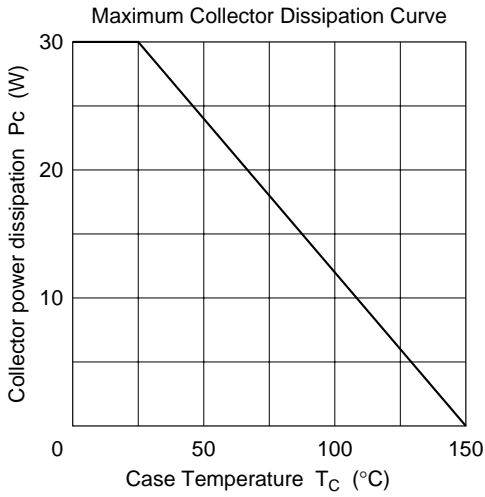
Note: 1. Value at  $T_C = 25^\circ\text{C}$ .

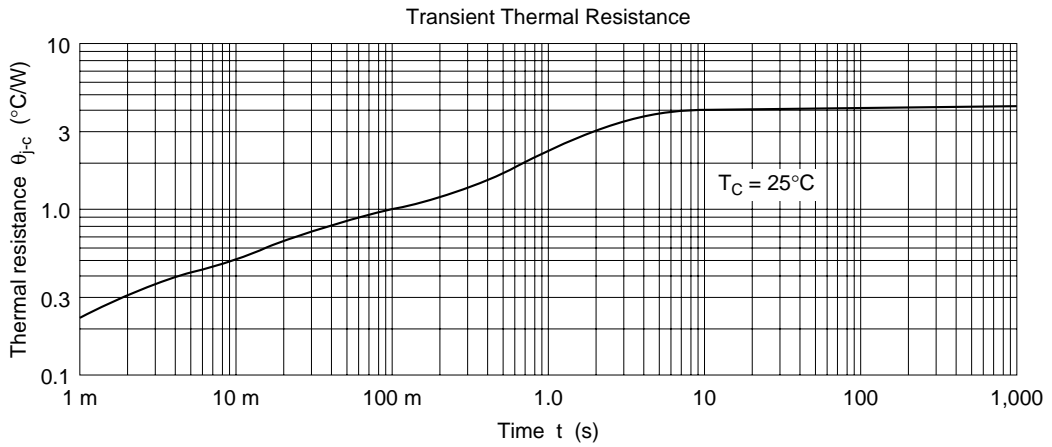
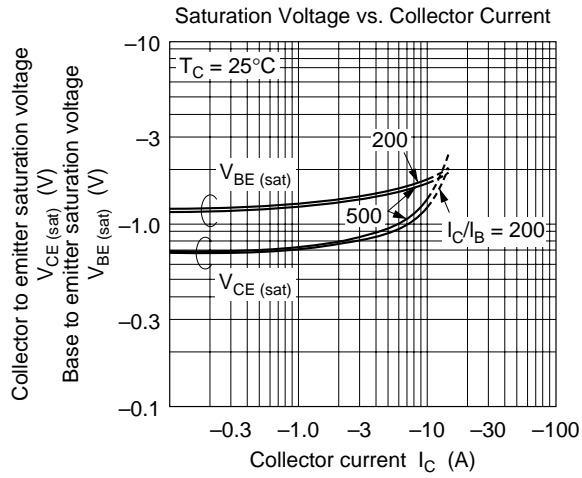
## Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-120	—	—	V	$I_C = -0.1\text{ mA}, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-120	—	—	V	$I_C = -25\text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-7	—	—	V	$I_E = -50\text{ mA}, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	-10	$\mu\text{A}$	$V_{CB} = -100\text{ V}, I_E = 0$
	$I_{CEO}$	—	—	-10		$V_{CE} = -100\text{ V}, R_{BE} = \infty$
DC current transfer ratio	$h_{FE}$	1000	—	20000		$V_{CE} = -3\text{ V}, I_C = -5\text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)1}$	—	—	-1.5	V	$I_C = -5\text{ A}, I_B = 10\text{ mA}^{*1}$
	$V_{CE(sat)2}$	—	—	-3.0		$I_C = -10\text{ A}, I_B = -100\text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)1}$	—	—	-2.0	V	$I_C = -5\text{ A}, I_B = 10\text{ mA}^{*1}$
	$V_{BE(sat)2}$	—	—	-3.5		$I_C = -10\text{ A}, I_B = -100\text{ mA}^{*1}$
C to E diode forward voltage	$V_D$	—	—	3.0	V	$I_D = 10\text{ A}^{*1}$

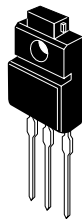
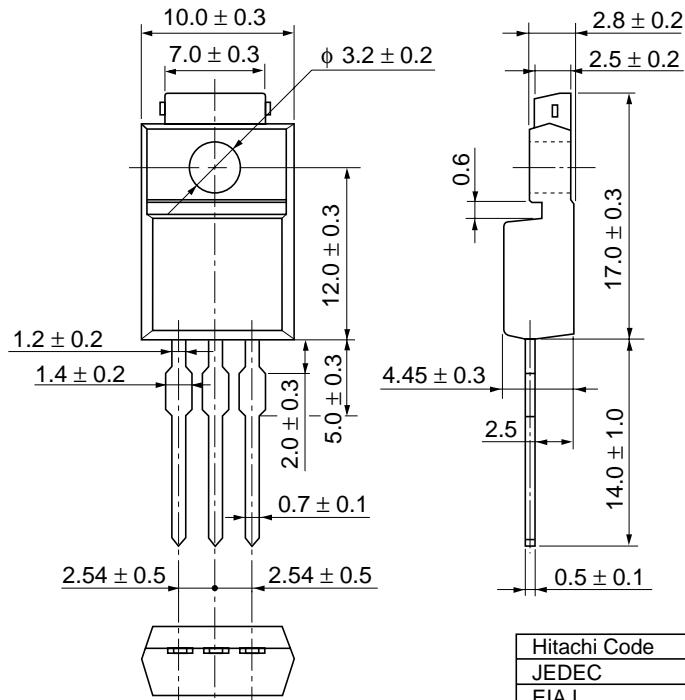
Note: 1. Pulse Test.

See switching characteristic curve of 2SB955(K).





Unit: mm



Hitachi Code	TO-220FM
JEDEC	—
EIAJ	Conforms
Weight (reference value)	1.8 g

## Cautions

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