Unit: mm

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

2SA1359

Audio Frequency Power Amplifier Low-Speed Switching

- Suitable for the output stage of 5-watt car radios and car stereos.
- Good hFE linearity
- Complementary to 2SC3422.

Absolute Maximum Ratings (Tc = 25°C)

Characteristics		Symbol	Rating	Unit	
Collector-base voltage		V _{CBO}	-40	V	
Collector-emitter voltage		V _{CEO}	-40	V	
Emitter-base voltage		V _{EBO}	-5	V	
Collector current		Ic	-3	Α	
Base current		ΙΒ	-1	Α	
Collector power dissipation	Ta = 25°C	Pc	1.5	W	
	Tc = 25°C	FC	10		
Junction temperature		Tj	150	°C	
Storage temperature range		T _{stg}	-55 to 150	°C	

8.3MAX.
5.8

93.1±0.1

1.0MAX.
1.9MAX.
0.75±0.15

1. EMITTER
2. COLLECTOR
3. BASE

JEDEC

JEITA

TOSHIBA

2-8H1A

Weight: 0.82 g (typ.)

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in

temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

2SA1359

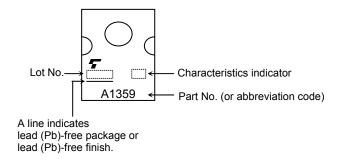


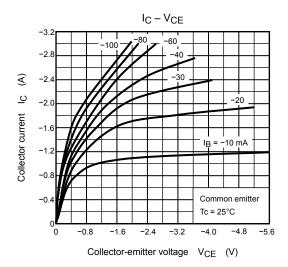
Electrical Characteristics (Tc = 25°C)

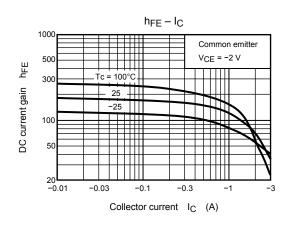
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} = -40 V, I _E = 0	_	_	-100	nA
Emitter cut-off current	I _{EBO}	$V_{EB} = -5 \text{ V, } I_{C} = 0$	_	_	-100	nA
Collector-emitter breakdown voltage	V (BR) CEO	I _C = -10 mA, I _B = 0	-40	_	_	٧
DC current gain	h _{FE (1)} (Note)	V _{CE} = -2 V, I _C = -0.5 A	80	_	240	
	h _{FE (2)}	V _{CE} = -2 V, I _C = -2.5 A	25	_	_	
Collector-emitter saturation voltage	V _{CE} (sat)	I _C = -2 A, I _B = -0.2 A	_	_	-0.8	V
Base-emitter voltage	V _{BE}	$V_{CE} = -2 V, I_{C} = -0.5 A$	_	_	-1.0	٧
Transition frequency	f _T	V _{CE} = -2 V, I _C = -0.5 A	_	100	_	MHz
Collector output capacitance	C _{ob}	V _{CB} = -10 V, I _E = 0, f = 1 MHz	_	35	_	pF

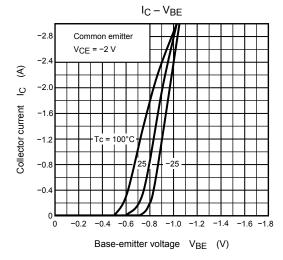
Note: h_{FE} (1) classification O: 80 to 160, Y: 120 to 240

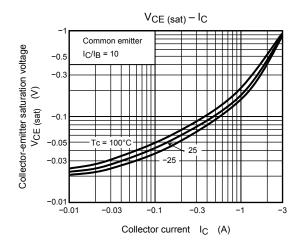
Marking

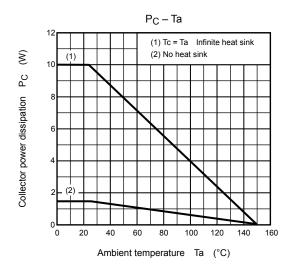


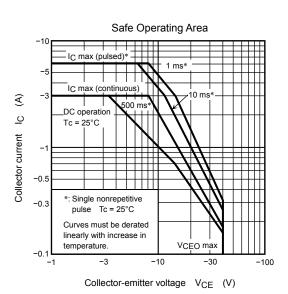












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RESTRICTIONS ON PRODUCT USE

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 In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent TOSHIBA products specifications. Also, please keep in mind the precautions and conditions set forth in the "Handling Guide for Semiconductor Devices," or "TOSHIBA Semiconductor Reliability Handbook" etc.
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