

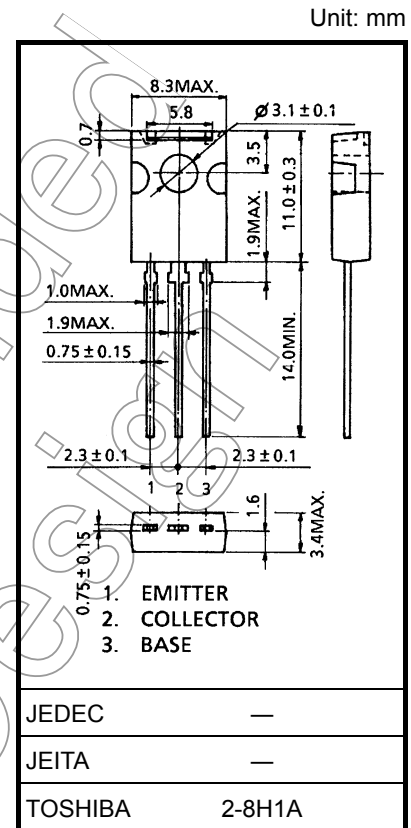
# 2SC3422

Audio Frequency Power Amplifier  
Low-Speed Switching

- Suitable for the output stage of 5-watt car radios and car stereos.
- Good  $h_{FE}$  linearity
- Complementary to 2SA1359.

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

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		$I_C$	3	A
Base current		$I_B$	1	A
Collector power dissipation	$T_a = 25^\circ\text{C}$	$P_C$	1.5	W
	$T_c = 25^\circ\text{C}$		10	
Junction temperature		$T_j$	150	$^\circ\text{C}$
Storage temperature range		$T_{stg}$	-55 to 150	$^\circ\text{C}$



Note1: 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).

Weight: 0.82 g (typ.)

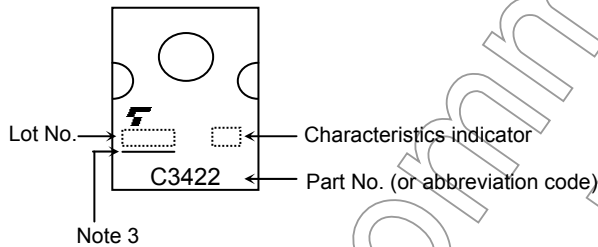
Not for New

## Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 40\text{ V}, I_E = 0$	—	—	100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	100	nA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}, I_B = 0$	40	—	—	V
DC current gain	$h_{FE(1)}$ (Note 2)	$V_{CE} = 2\text{ V}, I_C = 0.5\text{ A}$	80	—	240	
	$h_{FE(2)}$	$V_{CE} = 2\text{ V}, I_C = 2.5\text{ A}$	25	—	—	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2\text{ A}, I_B = 0.2\text{ A}$	—	—	0.8	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = 2\text{ V}, I_C = 0.5\text{ A}$	—	—	1.0	V
Transition frequency	$f_T$	$V_{CE} = 2\text{ V}, I_C = 0.5\text{ A}$	—	100	—	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	35	—	pF

Note 2:  $h_{FE(1)}$  classification O: 80 to 160, Y: 120 to 240

## Marking

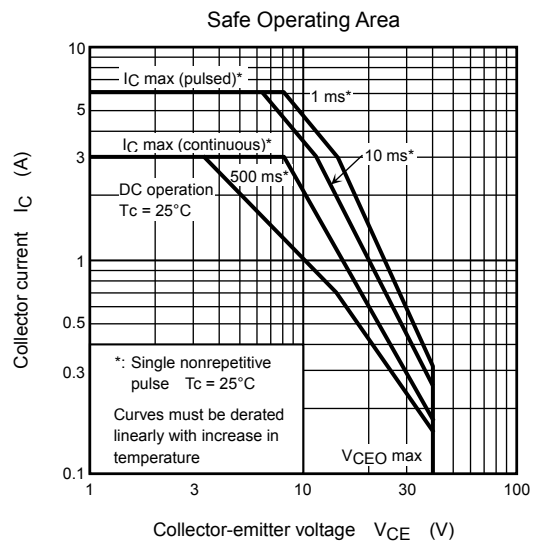
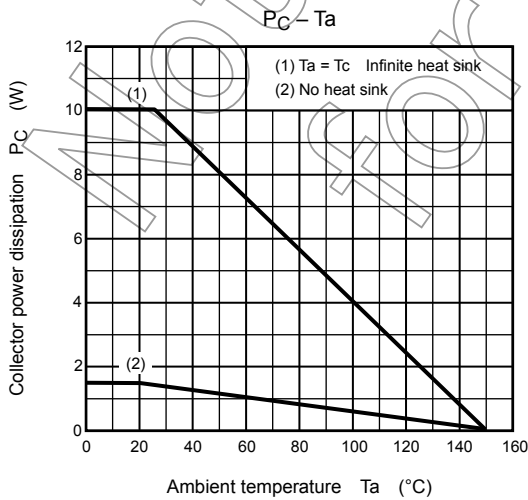
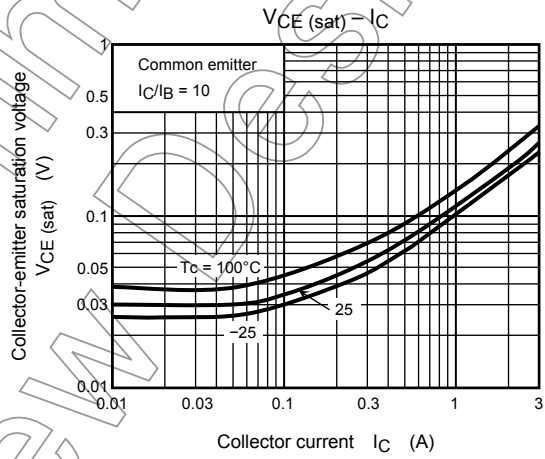
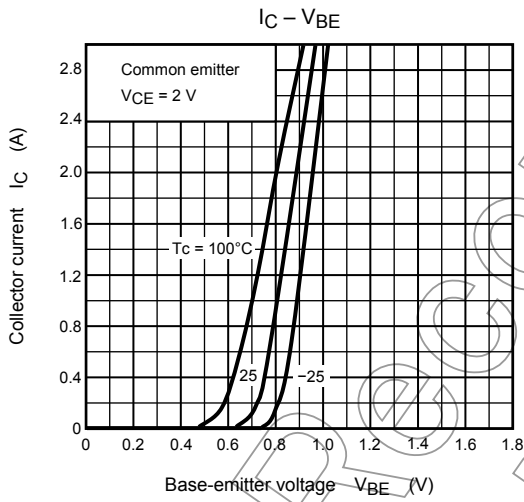
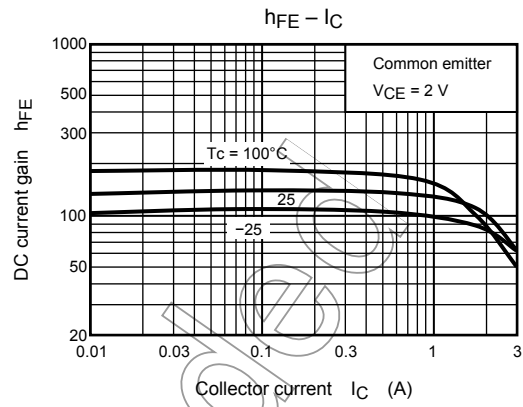
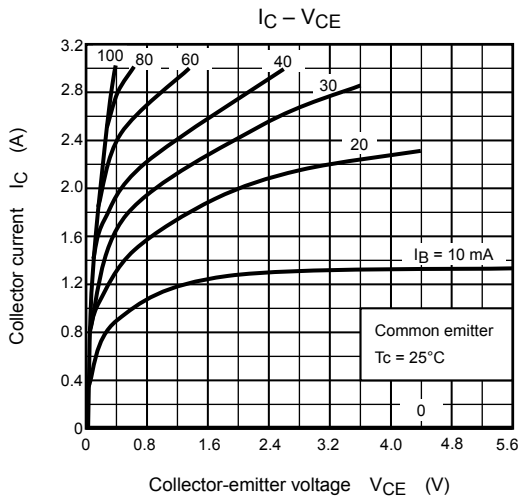


Note 3: A line under a Lot No. identifies the indication of product Labels.

Not underlined: [[Pb]]/INCLUDES > MCV

Underlined: [[G]]/RoHS COMPATIBLE or [[G]]/RoHS [[Pb]]

Please contact your TOSHIBA sales representative for details as to environmental matters such as the RoHS compatibility of Product. The RoHS is the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.



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