TOSHIBA Transistor Silicon PNP Triple Diffused Type

2SA1941

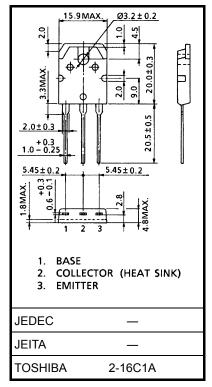
Power Amplifier Applications

Unit: mm

- High breakdown voltage: $V_{\rm CEO} = -140 \text{ V (min)}$
- Complementary to 2SC5198
- Recommended for 70-W high-fidelity audio frequency amplifier output stage.

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit	
Collector-base voltage	V_{CBO}	-140	V	
Collector-emitter voltage	V _{CEO}	-140	V	
Emitter-base voltage	V _{EBO}	-5	V	
Collector current	IC	-10	Α	
Base current	ΙB	-1	Α	
Collector power dissipation (T _C = 25°C)	P _C	100	W	
Junction temperature	Tj	150	°C	
Storage temperature range	T _{stg}	-55 to 150	°C	



Weight: 4.7 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).

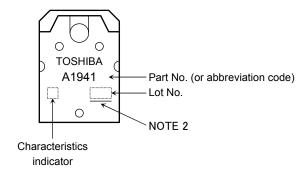


Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = -140 \text{ V}, I_E = 0$	_	_	-5.0	μΑ
Emitter cut-off current	I _{EBO}	$V_{EB} = -5 \text{ V}, I_C = 0$	_	_	-5.0	μΑ
Collector-emitter breakdown voltage	V (BR) CEO	$I_C = -50 \text{ mA}, I_B = 0$	-140	_	_	V
DC current gain	h _{FE (1)} (Note)	V _{CE} = -5 V, I _C = -1 A	55	_	160	
	h _{FE} (2)	V _{CE} = -5 V, I _C = -5 A	35	83	_	
Collector-emitter saturation voltage	V _{CE} (sat)	I _C = -7 A, I _B = -0.7 A	_	-0.8	-2.0	V
Base-emitter voltage	V _{BE}	V _{CE} = -5 V, I _C = -5 A	_	-1.0	-1.5	V
Transition frequency	f _T	V _{CE} = -5 V, I _C = -1 A	_	30	_	MHz
Collector output capacitance	C _{ob}	V _{CB} = −10 V, I _E = 0, f = 1 MHz	_	320	_	pF

Note: h_{FE (1)} classification R: 55 to 110, O: 80 to 160

Marking

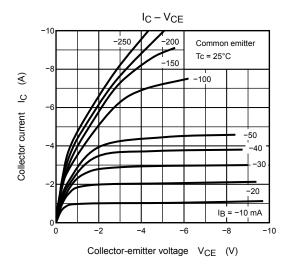


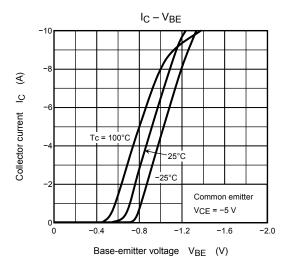
Note 2 : A line under a Lot No. identifies the indication of product Labels. $\hbox{[[G]]/RoHS COMPATIBLE or [[G]]/RoHS [[Pb]]}$

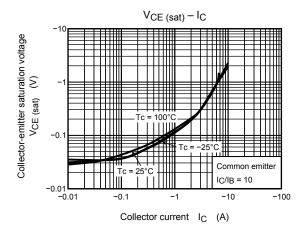
Please contact your TOSHIBA sales representative for details as to environmental matters such as the RoHS compatibility of Product.

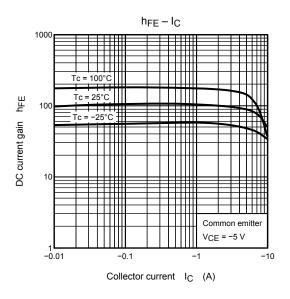
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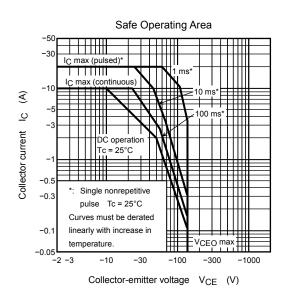
The RoHS is the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.











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