TOSHIBA Transistor Silicon PNP Triple Diffused Type

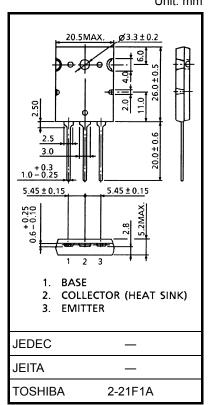
2SA1943

Power Amplifier Applications

• High collector voltage: VCEO = -230 V (min)

- Complementary to 2SC5200
- Recommended for 100-W high-fidelity audio frequency amplifier output stage.

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	-230	V
Collector-emitter voltage	V _{CEO}	-230	V
Emitter-base voltage	V _{EBO}	-5	V
Collector current	Ι _C	-15	А
Base current	Ι _Β	-1.5	А
Collector power dissipation (Tc = 25°C)	PC	150	W
Junction temperature	Tj	150	°C
Storage temperature range	T _{stg}	-55 to 150	°C



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

t change in Weight: 9.75 g (typ.)

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).

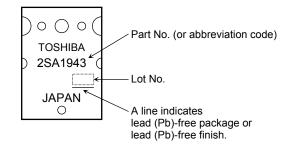
Unit: mm

Electrical Characteristics (Ta = 25°C)

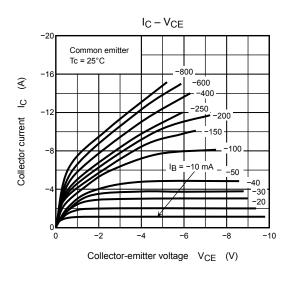
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = -230 \text{ V}, I_E = 0$	_	_	-5.0	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -5 V, I _C = 0	_	_	-5.0	μA
Collector-emitter breakdown voltage	V (BR) CEO	$I_{\rm C}$ = -50 mA, $I_{\rm B}$ = 0	-230	_	_	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 = -7 A	35	60	_	
Collector-emitter saturation voltage	V _{CE (sat)}	I _C = -8 A, I _B = -0.8 A	_	-1.5	-3.0	V
Base-emitter voltage	V _{BE}	V _{CE} = -5 V, I _C = -7 A	_	-1.0	-1.5	V
Transition frequency	fT	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	_	360	_	pF

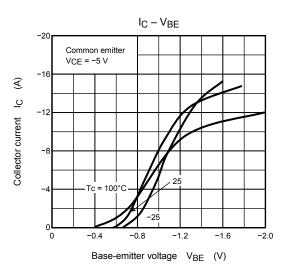
Note: h_{FE (1)} classification R: 55 to 110, O: 80 to 160

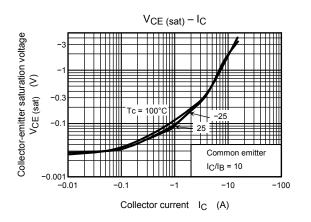
Marking

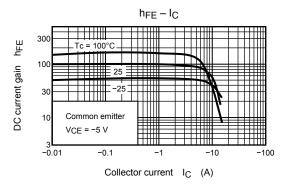


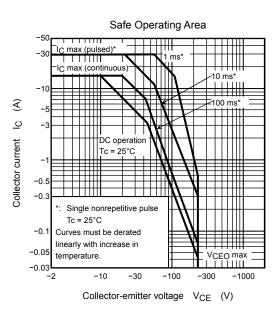
TOSHIBA

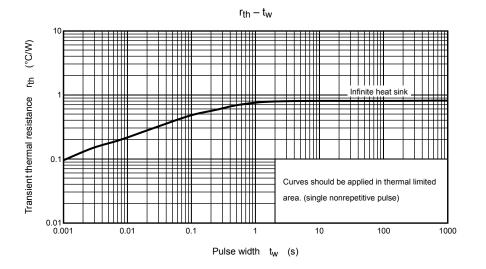












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