TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

2SA1013

Color TV Verttical Deflection Output Applications Power Switching Applications

- High voltage: VCEO = -160 V
- Large continuous collector current capability
- Recommended for vertical deflection output & sound output applications for line-operated TV.
- Complementary to 2SC2383.

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-160	V
Collector-emitter voltage	V _{CEO}	-160	V
Emitter-base voltage	V _{EBO}	-6	V
Collector current	IC	-1	Α
Base current	Ι _Β	-0.5	Α
Collector power dissipation	PC	900	mW
Junction temperature	Tj	150	°C
Storage temperature range	T _{stg}	-55 to 150	°C

1. EMITTER 2. COLLECTOR 3. BASE Unit: mm 5.1 MAX. 1.27 1.27 1.27 1.27 2.54 2.54 VAW90 0 1. EMITTER 2. COLLECTOR 3. BASE

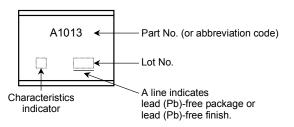
Weight: 0.36 g (typ.)

Electrical Characteristics (Ta = 25°C)

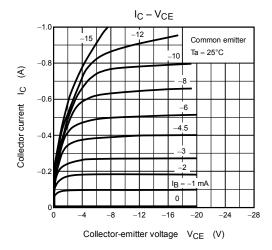
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = -150 \text{ V}, I_E = 0$	_	_	-1.0	μΑ
Emitter cut-off current	I _{EBO}	$V_{EB} = -6 \text{ V}, I_C = 0$	_	_	-1.0	μA
Collector-emitter breakdown voltage	V (BR) CEO	$I_C = -10 \text{ mA}, I_B = 0$	-160	_	_	V
DC current gain	h _{FE} (Note)	$V_{CE} = -5 \text{ V}, I_{C} = -200 \text{ mA}$	60	_	200	
Collector-emitter saturation voltage	V _{CE (sat)}	$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$	_	_	-1.5	V
Base-emitter voltage	V_{BE}	$V_{CE} = -5 \text{ V}, I_{C} = -5 \text{ mA}$	-0.45	_	-0.75	V
Transition frequency	f _T	$V_{CE} = -5 \text{ V}, I_{C} = -200 \text{ mA}$	15	50	_	MHz
Collector output capacitance	C _{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$	_	_	35	pF

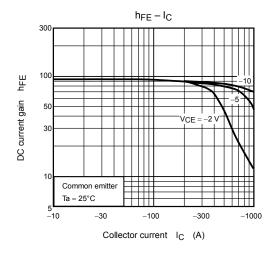
Note: hFE classification R: 60 to 120, O: 100 to 200

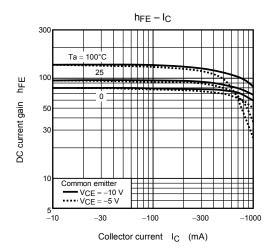
Marking

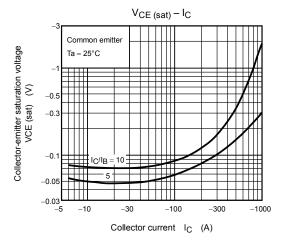


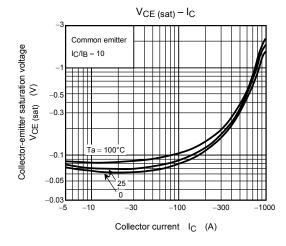
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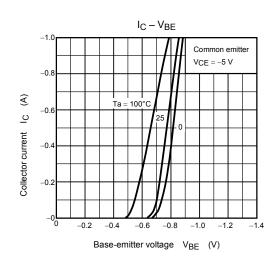


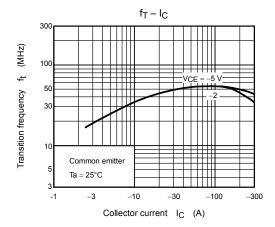


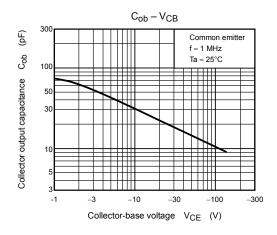


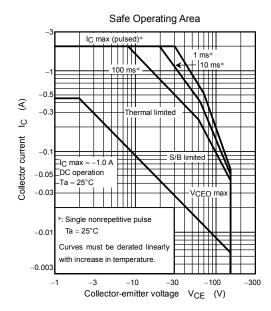












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