TOSHIBA 2SC5000

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE

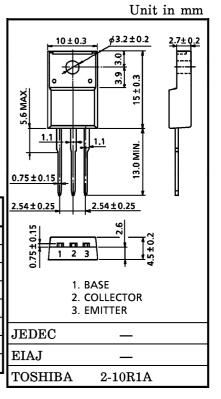
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POWER AMPLIFIER APPLICATIONS

Low Collector Saturation Voltage : $V_{CE (sat)} = 0.4 \text{ V (Max.)} (I_C = 5 \text{ A})$

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	$V_{ m EBO}$	7	V
Collector Current	$I_{\mathbf{C}}$	10	A
Base Current	IB	1	A
Collector Power Dissipation	PC	25	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	$T_{ m stg}$	-55~150	$^{\circ}\mathrm{C}$



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHAR	ACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cu	ıt-off Current	ICBO	$V_{CB} = 70 \text{ V}, I_{E} = 0$	_	_	1	μ A
Emitter Cut	-off Current	I_{EBO}	$V_{EB} = 7 \text{ V}, I_{C} = 0$	_	_	1	μ A
Collector-En Voltage	nitter Breakdown	V (BR) CEO	$I_{C} = 10 \text{ mA}, I_{B} = 0$	50	_	_	V
DC Current	Gain	hFE (1)	$V_{CE} = 1 V$, $I_C = 1 A$	120	_	400	
Saturation	Collector-Emitter	V _{CE} (sat)	$I_C = 5 \text{ A}, I_B = 0.25 \text{ A}$	_	0.19	0.4	V
Voltage	Base-Emitter	V _{BE (sat)}	$I_C = 5 \text{ A}, I_B = 0.25 \text{ A}$	_	0.96	1.4]
Transition I	Frequency	$ m f_{T}$	$V_{CE} = 1 V$, $I_C = 1 A$	_	90	_	MHz
Collector Ou	ıtput Capacitance	$C_{ m ob}$	$V_{CB} = 10 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$	_	90	_	pF

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