TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

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POWER AMPLIFIER APPLICATIONS

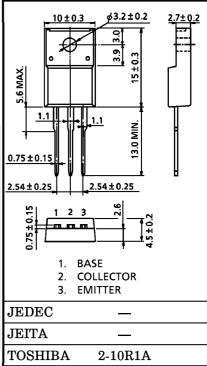
• High Power Dissipation : PC=25W (Tc=25°C)

• Good Linearity of hFE

MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	v_{CBO}	80	V
Collector-Emitter Voltage	v_{CEO}	80	V
Emitter-Base Voltage	$v_{ m EBO}$	5	V
Collector Current	$I_{\mathbf{C}}$	4	A
Base Current	$I_{\mathbf{B}}$	0.4	A
Collector Power Dissipation (Tc=25°C)	$\mathbf{P}_{\mathbf{C}}$	25	W
Junction Temperature	${f T_j}$	150	°C
Storage Temperature Range	${ m T_{stg}}$	-55~150	°C

Unit in mm



Weight: 1.7g (Typ.)

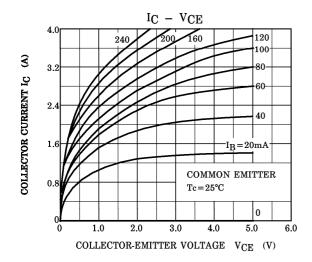
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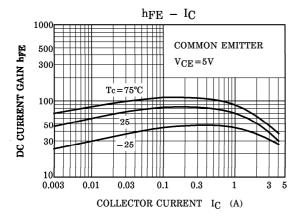
ELECTRICAL CHARACTERISTIC (Tc = 25°C)

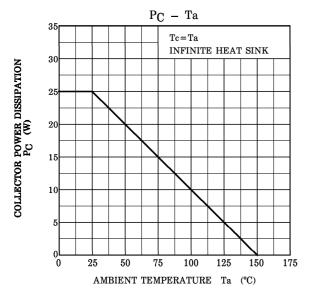
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 80V, I_{E} = 0$		_	30	μ A
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB}=5V, I_{C}=0$	_		100	μ A
Collector-Emitter Breakdown Voltage	V _(BR) CEO	$I_C=50$ mA, $I_B=0$	80	_	_	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	$I_E=10$ mA, $I_C=0$	5	_	_	V
DC Current Gain	h _{FE (1)} (Note)	$V_{CE} = 5V, I_{C} = 0.5A$	70		240	
	hFE (2)	$V_{CE}=5V, I_{C}=3A$	15	50	_	
Collector-Emitter Saturation Voltage	V _{CE (sat)}	$I_{C}=3A, I_{B}=0.3A$	_	0.45	1.5	V
Base-Emitter Voltage	$V_{ m BE}$	$V_{CE}=5V, I_{C}=3A$	_	1.0	1.5	V
Transition Frequency	$ m f_{T}$	$V_{CE} = 5V, I_{C} = 0.5A$		8.0	_	MHz
Collector Output Capacitance	$C_{\mathbf{ob}}$	VCB=10V, IE=0, f=1MHz	_	90	_	pF

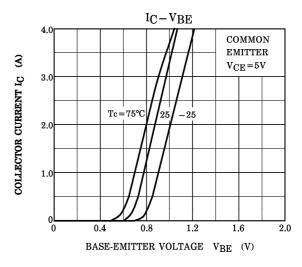
(Note) : $h_{FE(1)}$ Classification $O: 70\sim140, Y: 120\sim240$

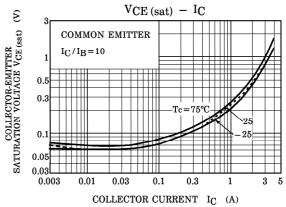
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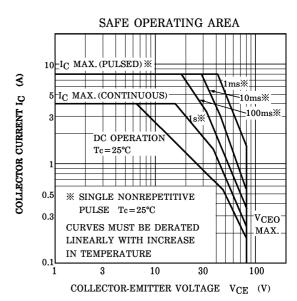












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