TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

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FOR MUTING AND SWITCHING APPLICATIONS

High Emitter-Base Voltage: VEBO=25V (Min.)

High Reverse hFE : Reverse $h_{FE} = 150 \text{ (Typ.)}$

 $(V_{CE} = -2V, I_{C} = -4mA)$

: $R_{ON} = 1\Omega$ (Typ.) ($I_B = 5mA$) Low On Resistance

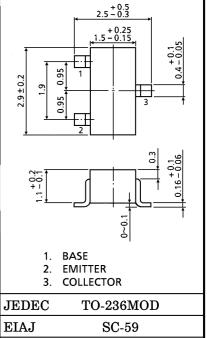
High DC Current Gain : $h_{FE} = 200 \sim 1200$

Small Package

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	v_{CEO}	20	V
Emitter-Base Voltage	$V_{ m EBO}$	25	V
Collector Current	$I_{\mathbf{C}}$	300	mA
Base Current	I_{B}	60	mA
Collector Power Dissipation	PC	150	mW
Junction Temperature	$\mathbf{T}_{\mathbf{j}}$	125	°C
Storage Temperature Range	$\mathrm{T_{stg}}$	-55~125	°C

Unit in mm

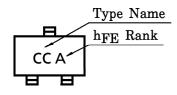


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Weight: 0.012g

TOSHIBA

MARKING



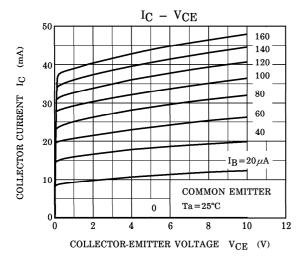
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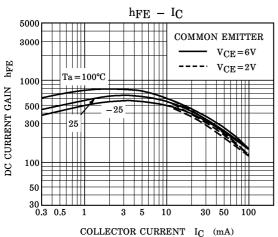
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

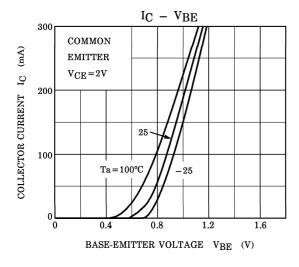
CHARAC	TERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-o	off Current	I_{CBO}	$V_{CB}=50V, I_E=0$	_	<u> </u>	0.1	μ A
Emitter Cut-of	f Current	I_{EBO}	$V_{EB}=25V, I_C=0$	_	_	0.1	μ A
DC Current G	ain	h _{FE} (Note)	$V_{CE}=2V$, $I_{C}=4mA$	200	_	1200	
Collector-Emit	ter Saturation	V _{CE} (sat)	$I_C=30$ mA, $I_B=3$ mA	_	0.042	0.1	V
Base-Emitter V	Voltage	$ m V_{BE}$	$V_{CE}=2V, I_{C}=4mA$	_	0.61	_	V
Transition Fre	quency	$\mathbf{f_{T}}$	$V_{CE}=6V, I_{C}=4mA$	_	30	_	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	4.8	7	pF
Switching Time Stora	Turn-on Time	t_{on}	INPUT V_{0}		160	_	
	Storage Time	$\mathbf{t_{stg}}$			500	_	ns
	Fall Time	t _f			130		

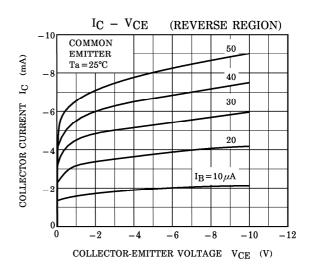
(Note) : hFE Classification A : 200~700, B : 350~1200

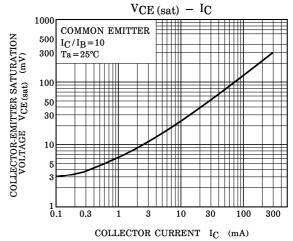
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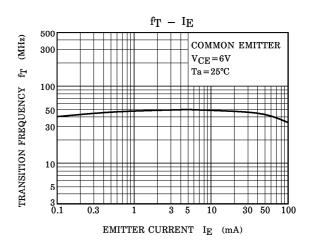




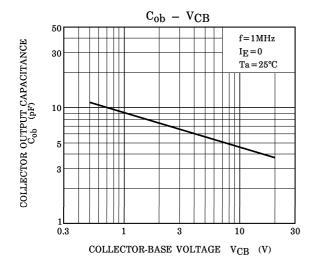


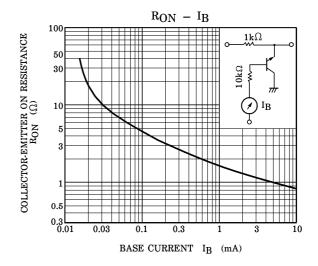


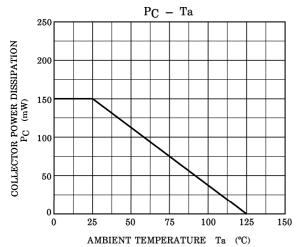




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