

TOSHIBA

2SC5154

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

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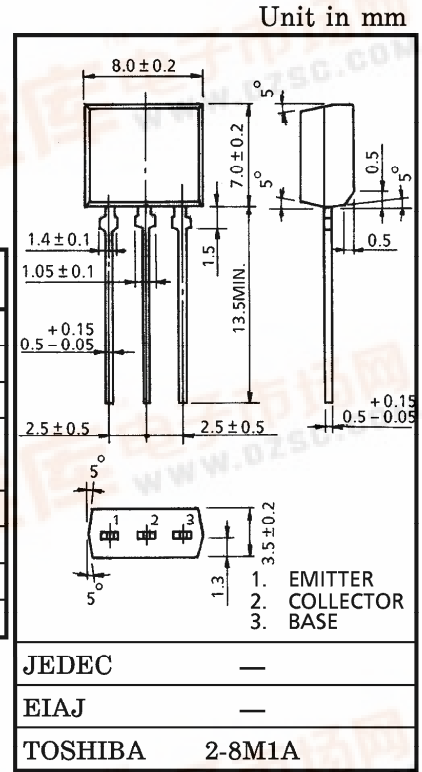
POWER AMPLIFIER APPLICATIONS

DRIVER STAGE AMPLIFIER APPLICATIONS

- High Transition Frequency : $f_T=100\text{MHz}$ (Typ.)

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	160	V
Collector-Emitter Voltage		V_{CE0}	160	V
Emitter-Base Voltage		V_{EB0}	5	V
Collector Current	DC	I_C	1.5	A
	Pulse	I_{CP}	3	
Base Current		I_B	0.15	A
Collector Power Dissipation		P_C	1.3	W
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-65~150	$^\circ\text{C}$



Weight : 0.55g (Typ.)

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=160\text{V}, I_E=0$	—	—	1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$	—	—	1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CE0}$	$I_C=10\text{mA}, I_B=0$	160	—	—	V
DC Current Gain	h_{FE} (Note)	$V_{CE}=5\text{V}, I_C=100\text{mA}$	70	—	240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$	—	—	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=5\text{V}, I_C=500\text{mA}$	—	0.75	0.95	V
Transition Frequency	f_T	$V_{CE}=10\text{V}, I_C=100\text{mA}$	—	100	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	—	25	—	pF

Note : h_{FE} Classification O : 70~140, Y : 120~240

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