

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SC5201

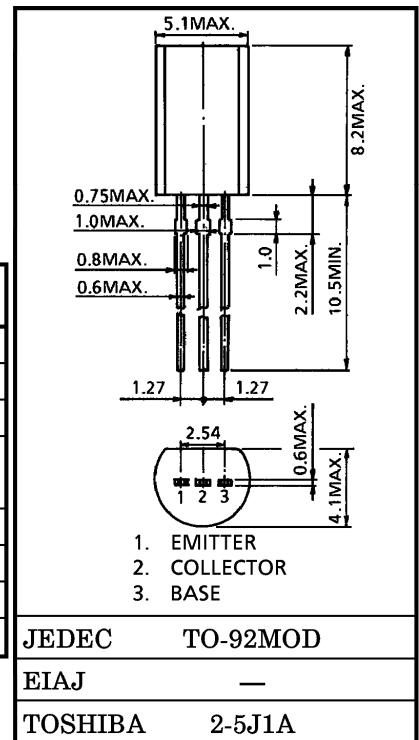
HIGH VOLTAGE SWITCHING APPLICATIONS

Unit in mm

- High Voltage : $V_{CEO} = 600\text{ V}$
- Low Saturation Voltage
: $V_{CE(sat)} = 1.0\text{ V (Max.)}$ ($I_C = 20\text{ mA}$, $I_B = 0.5\text{ mA}$)

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	600	V
Collector-Emitter Voltage		V_{CEO}	600	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	50	mA
	Pulse	I_{CP}	100	
Base Current		I_B	25	mA
Collector Power Dissipation		P_C	900	mW
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-55~150	$^\circ\text{C}$



Weight : 0.36 g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 600\text{ V}$, $I_E = 0$	—	—	1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 7\text{ V}$, $I_C = 0$	—	—	1	μA
Collector-Emitter Breakdown Voltage	V_{CEO}	$I_C = 1\text{ mA}$, $I_B = 0$	600	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 5\text{ V}$, $I_C = 1\text{ mA}$	80	—	—	
	$h_{FE(2)}$	$V_{CE} = 5\text{ V}$, $I_C = 20\text{ mA}$	100	—	300	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 20\text{ mA}$, $I_B = 0.5\text{ mA}$	—	—	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 5\text{ V}$, $I_C = 20\text{ mA}$	—	0.66	0.85	V
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$	—	6.5	—	pF

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