TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SC5201

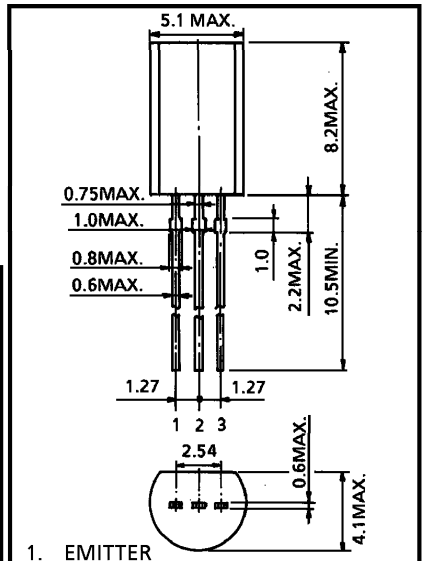
HIGH VOLTAGE SWITCHING APPLICATIONS

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

MAXIMUM RATINGS (Ta = 25°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	°C
Storage Temperature Range		T_{stg}	−55~150	°C

Unit in mm



JEDEC	TO-92MOD
JEITA	—
TOSHIBA	2-5J1A

Weight : 0.36 g (Typ.)

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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

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