

**TOSHIBA**

**2SD2571**

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

# 2SD2571

HIGH POWER SWITCHING APPLICATIONS

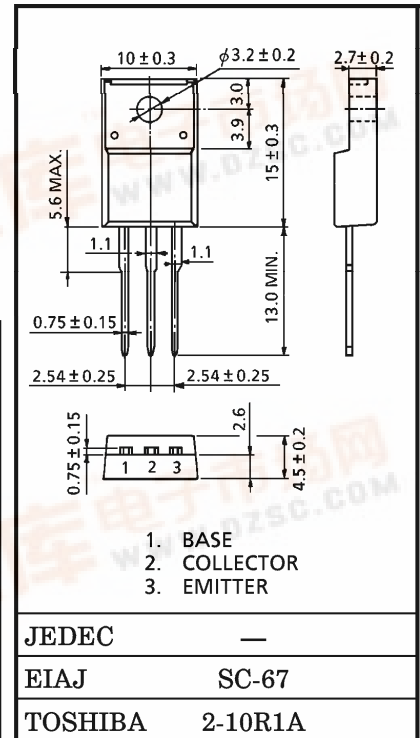
HAMMER DRIVE, PULSE MOTOR DRIVE APPLICATIONS

- High DC Current Gain :  $h_{FE} = 2000$  (Min.)  
( $V_{CE} = 2V, I_C = 1A$ )
- Low Saturation Voltage :  $V_{CE(sat)} = 1.5V$  (Max.) ( $I_C = 1A$ )

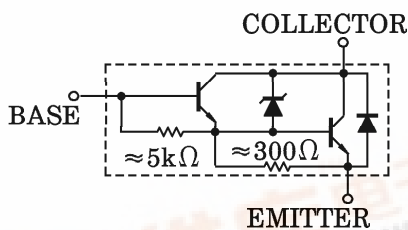
MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	$100 \pm 10$	V
Collector-Emitter Voltage	$V_{CEO}$	$100 \pm 10$	V
Emitter-Base Voltage	$V_{EBO}$	8	V
Collector Current	DC	$I_C$	2
	Pulse	$I_{CP}$	3
Base Current	$I_B$	0.5	A
Collector Power Dissipation	$T_a = 25^\circ C$	$P_C$	2.0
	$T_c = 25^\circ C$		25
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	$-55 \sim 150$	$^\circ C$

Unit in mm

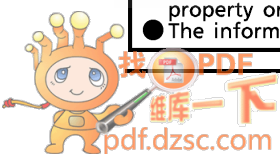


EQUIVALENT CIRCUIT



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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		$I_{CBO}$	$V_{CB} = 80V, I_E = 0$	—	—	100	$\mu A$
Emitter Cut-off Current		$I_{EBO}$	$V_{EB} = 8V, I_C = 0$	0.8	—	4.0	mA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	85	100	115	V
DC Current Gain		$h_{FE(1)}$	$V_{CE} = 2V, I_C = 1A$	2000	—	15000	
		$h_{FE(2)}$	$V_{CE} = 2V, I_C = 1.5A$	1000	—	—	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = 1A, I_B = 1mA$	—	—	1.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C = 1A, I_B = 1mA$	—	—	2.0	V
Switching Time	Turn-on Time	$t_{on}$	<p> <math>I_{B1} = -I_{B2} = 1mA</math>                      DUTY CYCLE <math>\leq 1\%</math>    <math>V_{CC} = 30V</math> </p>	—	0.45	—	$\mu s$
	Storage Time	$t_{stg}$		—	2.0	—	
	Fall Time	$t_f$		—	—	0.4	