

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (DARLINGTON)

# 2SD2480

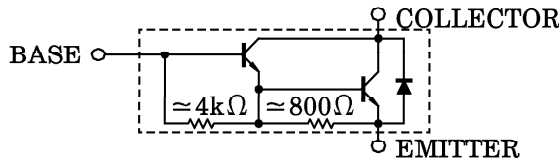
MICRO MOTOR DRIVE, HAMMER DRIVE APPLICATIONS  
 SWITCHING APPLICATIONS  
 POWER AMPLIFIER APPLICATIONS

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

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

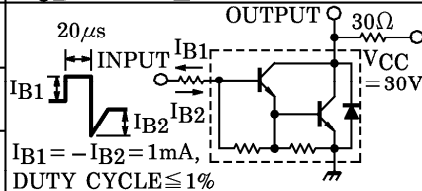
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
Emitter-Base Voltage	$V_{EBO}$	8	V
Collector Current	DC	$I_C$	2
	Pulse	$I_{CP}$	3
Base Current	$I_B$	0.5	A
Collector Power Dissipation	$P_C$	1.3	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$

EQUIVALENT CIRCUIT

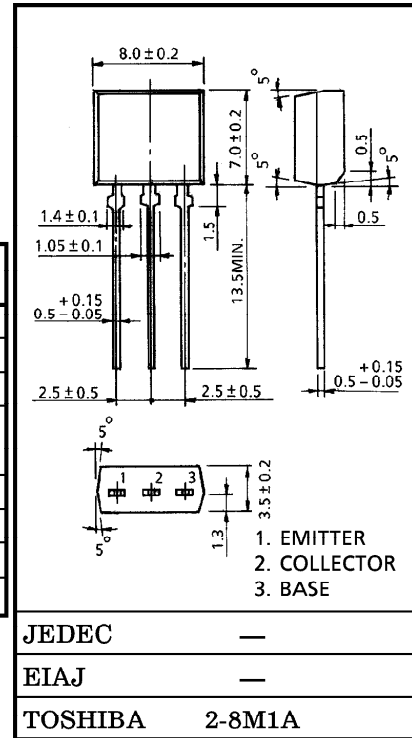


ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 80V, I_E = 0$	—	—	10	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 8V, I_C = 0$	—	—	4	mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	100	—	—	V
DC Current Gain	$h_{FE}$	$V_{CE} = 2V, I_C = 1A$	2000	—	—	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	—	—	1.5	V
	Base-Emitter	$V_{BE(sat)}$	—	—	2.0	
Transition Frequency	$f_T$	$V_{CE} = 2V, I_C = 0.5A$	—	100	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	20	—	pF
Switching Time	Turn-On Time	$t_{on}$	—	0.4	—	$\mu s$
	Storage Time	$t_{stg}$	—	4.0	—	
	Fall Time	$t_f$	—	0.6	—	



Unit in mm



Weight : 0.55g (Typ.)

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