

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (DARLINGTON)

2SD2480

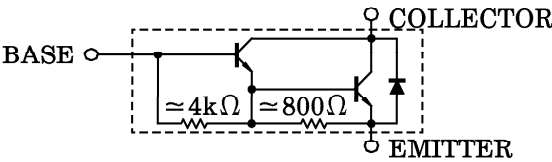
MICRO MOTOR DRIVE, HAMMER DRIVE APPLICATIONS
SWITCHING APPLICATIONS
POWER AMPLIFIER APPLICATIONS

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

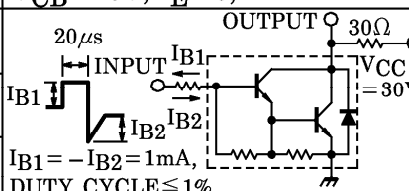
MAXIMUM RATINGS (Ta = 25°C)

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	A
	Pulse	I_{CP}	3	
Base Current		I_B	0.5	A
Collector Power Dissipation		P_C	1.3	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55~150	°C

EQUIVALENT CIRCUIT



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=80V, I_E=0$	—	—	10	μA
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	$V_{CE(sat)}$	$I_C=1A, I_B=1mA$	—	—	1.5	V
	Base-Emitter	$V_{BE(sat)}$	$I_C=1A, I_B=1mA$	—	—	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	—	μs
	Storage Time	t_{stg}		—	4.0	—	
	Fall Time	t_f		—	0.6	—	

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