TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (DARLINGTON POWER TRANSISTOR)

2SD2384

POWER AMPLIFIER APPLICATIONS

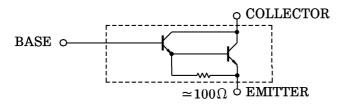
• High Breakdown Voltage: VCEO=140V (Min.)

• Complementary to 2SB1555

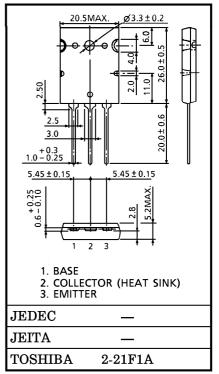
MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	v_{CBO}	140	V
Collector-Emitter Voltage	v_{CEO}	140	V
Emitter-Base Voltage	$V_{ m EBO}$	5	V
Collector Current	$I_{\mathbf{C}}$	7	A
Base Current	$I_{\mathbf{B}}$	0.1	A
Collector Power Dissipation (Tc=25°C)	PC	100	w
Junction Temperature	Tj	150	°C
Storage Temperature Range	$\mathrm{T_{stg}}$	-55~150	°C

EQUIVALENT CIRCUIT



Unit in mm



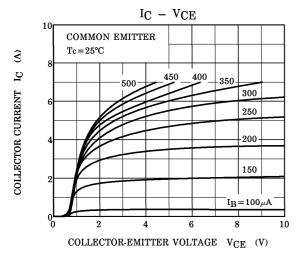
Weight: 9.75 g (Typ.)

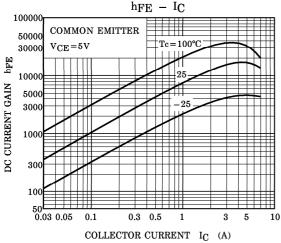
ELECTRICAL CHARACTERISTIC (Tc = 25°C)

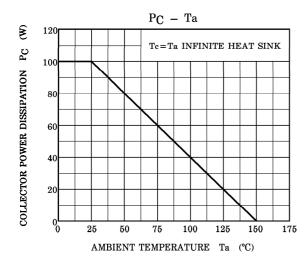
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-Off Current	ICBO	$V_{CB} = 140V, I_E = 0$	_	_	5.0	μ A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	_	_	5.0	μ A
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_{C} = 50 \text{mA}, I_{B} = 0$	140	_	_	V
DC Current Gain	h _{FE} (1) (Note)	$V_{\rm CE}$ =5V, $I_{\rm C}$ =6A	5000	_	30000	_
	h _{FE} (2)	$V_{\text{CE}} = 5V$, $I_{\text{C}} = 10A$	2000	_	_	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	I _C =6A, I _B =6mA	_	_	2.5	V
Base-Emitter Voltage	$ m V_{BE}$	$V_{CE}=5V$, $I_{C}=6A$	_	_	3.0	V
Transition Frequency	$ m f_{T}$	$V_{CE}=5V$, $I_{C}=1A$	_	30	_	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	90	_	рF

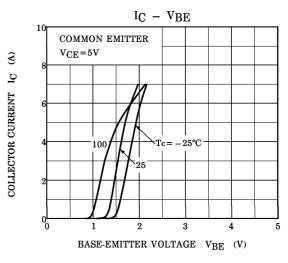
(Note) : h_{FE} (1) Classification A : 5000~12000, B : 9000~18000, C : 15000~30000

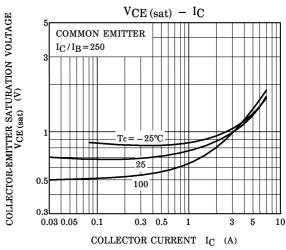
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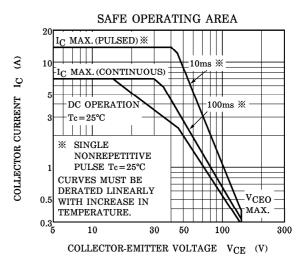












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