2SD799

SILICON NPN TRIPLE DIFFUSED TYPE
(DARLINGTON POWER)

IGNITER APPLICATIONS.

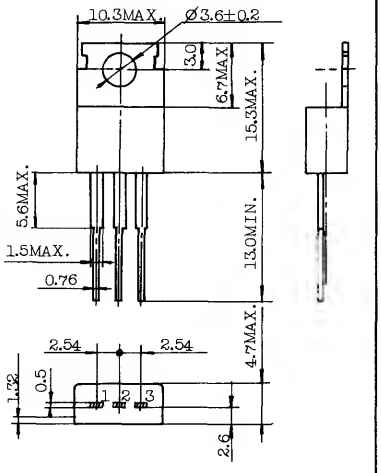
HIGH VOLTAGE SWITCHING APPLICATIONS.

FEATURES:

- High DC Current Gain : h_{FE}=600(Min.)(V_{CE}=2V, I_C=2A)
- Monolithic Construction with Built-In Base-Emitter Shunt Resistor.

INDUSTRIAL APPLICATIONS

Unit in mm



1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

JEDEC	TO – 220AB
EIAJ	SC – 46
TOSHIBA	2 – 10A1A

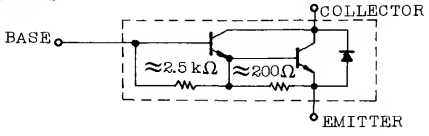
Mounting Kit No. AC75

Weight : 1.9g

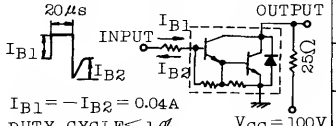
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	600	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	6	A
Base Current	I_B	1	A
Collector Power Dissipation (Tc=25°C)	P_C	30	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55∿150	°C

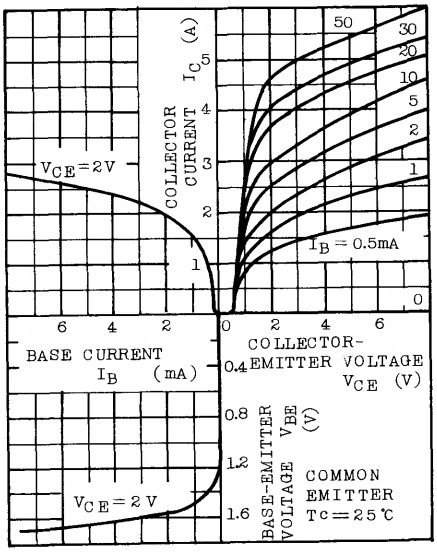
EQUIVALENT CIRCUIT



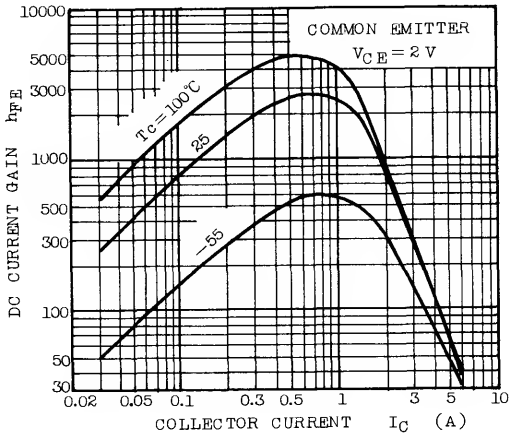
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=600V, I_E=0	–	–	0.5	mA
Emitter Cut-off Current		I_{EBO}	V_{EB}=5V, I_C=0	–	–	3	mA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=10mA, I_B=0	400	–	–	V
DC Current Gain		$h_{FE(1)}$	V_{CE}=2V, I_C=2A	600	–	–	
		$h_{FE(2)}$	V_{CE}=2V, I_C=4A	100	–	–	
Collector-Emitter Saturaton Voltage		$V_{CE(sat)}$	I_C=4A, I_B=0.04A	–	–	2.0	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=4A, I_B=0.04A	–	–	2.5	V
Emitter-Collector Forward Voltage		V_{ECF}	I_E=4A, I_B=0	–	–	3.0	V
Collector Output Capacitance		C_{ob}	V_{CB}=50V, I_E=0, f=1MHz	–	35	–	pF
Switching Time	Turn-on Time	t_{on}		–	1	–	μs
	Storage Time	t_{stg}		–	8	–	
	Fall Time	t_f		–	5	–	

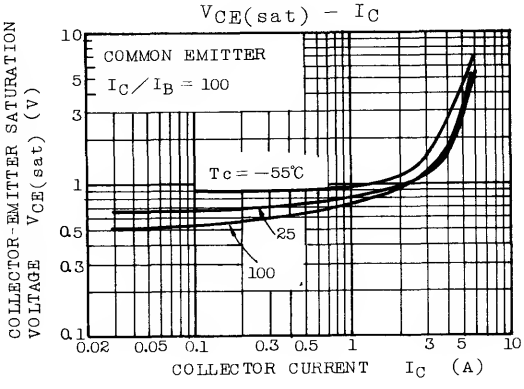
STATIC CHARACTERISTICS



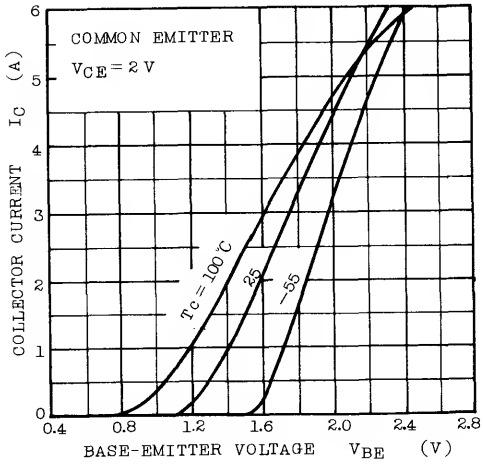
h_{FE} – I_C



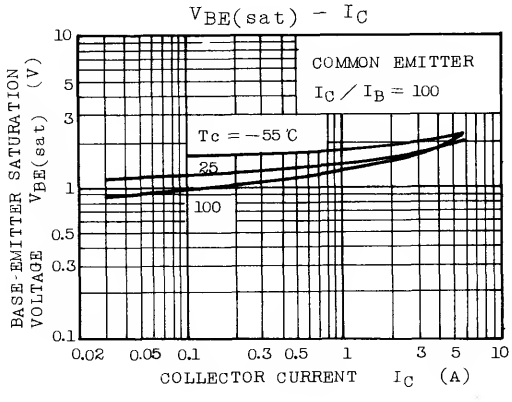
$V_{CE(sat)}$ – I_C



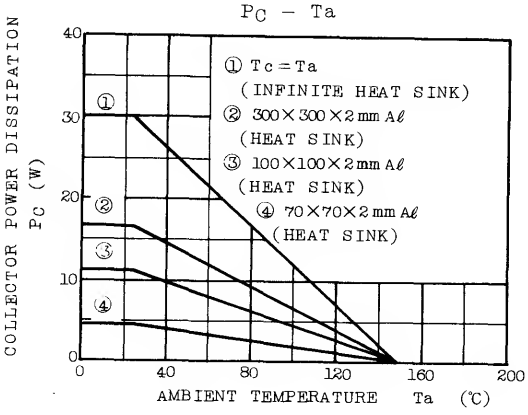
I_C – V_{BE}



$V_{BE(sat)}$ – I_C



P_C – Ta



SAFE OPERATING AREA