2SD1360

SILICON NPN TRIPLE DIFFUSED TYPE
(DARLINGTON POWER)

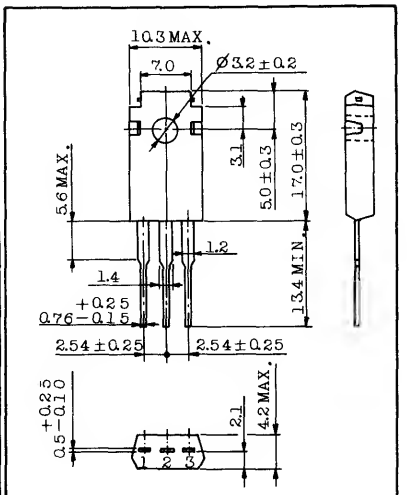
IGNITER APPLICATIONS.

HIGH VOLTAGE SWITCHING APPLICATIONS.

INDUSTRIAL APPLICATIONS

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

Unit in mm



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

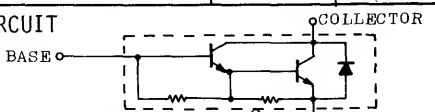
JEDEC	—
EIAJ	—
TOSHIBA	2-10K1A

Weight : 2.0g

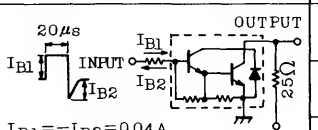
MAXIMUM RATINGS (Ta=25°C)

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

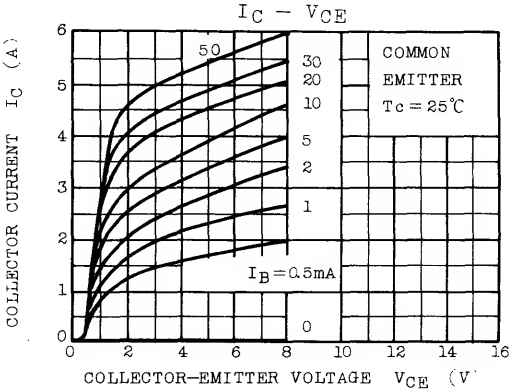
EQUIVALENT CIRCUIT



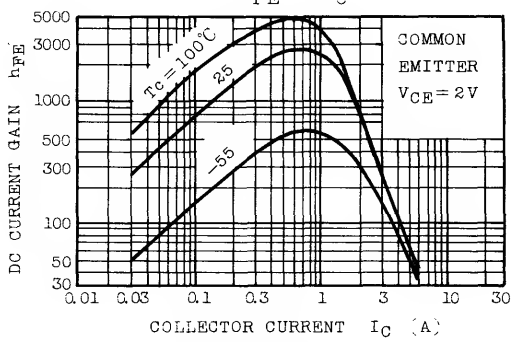
ELECTRICAL CHARACTERISTICS (Ta=25°C)

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	−	−	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	I_C=4A, I_B=0.04A	−	−	2.0	V
	Base-Emitter	$V_{BE(sat)}$	I_C=4A, I_B=0.04A	−	−	2.5	
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	I_{B1}=−I_{B2}=0.04A DUTY CYCLE≦1% V_{CC}=100V	−	5	−	

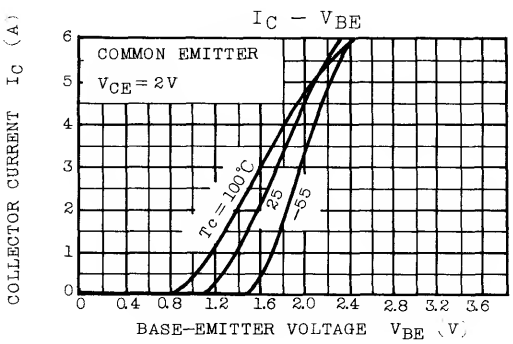
$I_C - V_{CE}$



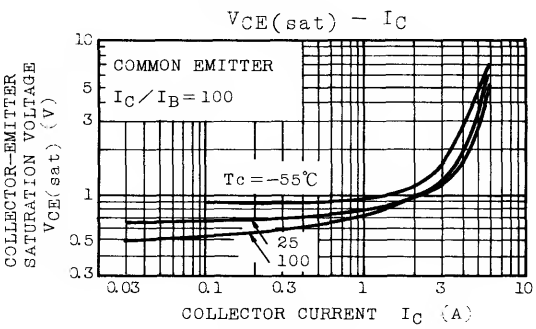
$h_{FE} - I_C$



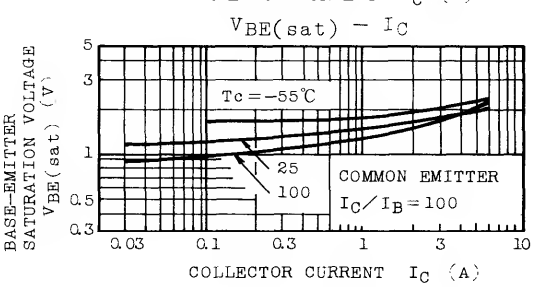
$I_C - V_{BE}$



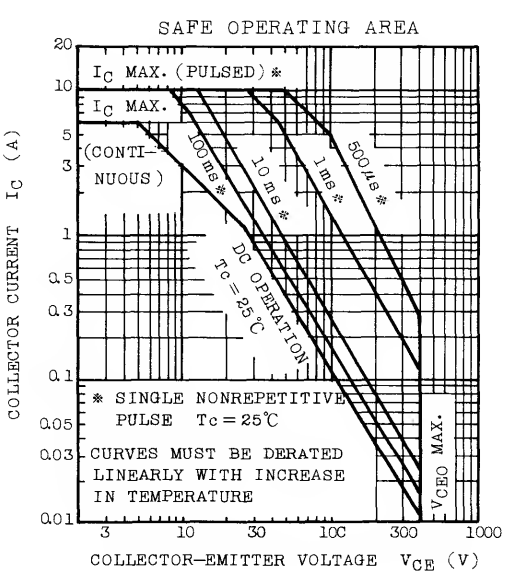
$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$



SAFE OPERATING AREA



$P_C - Ta$