

2SD1409

SILICON NPN TRIPLE DIFFUSED TYPE
(DARLINGTON POWER)

IGNITER APPLICATIONS.

HIGH VOLTAGE SWITCHING APPLICATIONS.

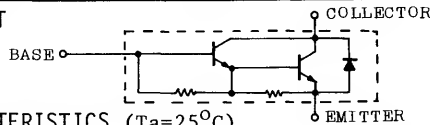
FEATURES:

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

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

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	P_C	$T_a=25^\circ\text{C}$	2.0
		$T_c=25^\circ\text{C}$	25
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

EQUIVALENT CIRCUIT

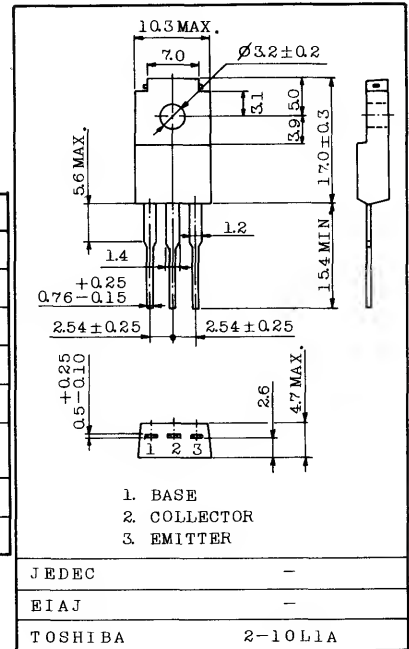


ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

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 Saturation 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	-
	Storage Time	t_{stg}	-	-	8	-	μs
	Fall Time	t_f	$I_{B1}=-I_{B2}=0.04A$ DUTY CYCLE $\leq 1\%$	-	-	5	-

INDUSTRIAL APPLICATIONS

Unit in mm



Weight : 2.1g

