DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

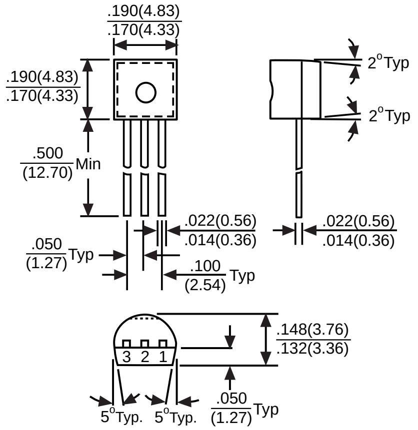
2SD879

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

Designed for use in 1.5V and 3V electronic flash.

TO-92



Dimensions in inches and (millimeters)

Pinning

1 = Emitter
2 = Collector
3 = Base

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEX}	20	V
	V_{CEO}	10	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	3	A
Collector Current (pulse)	I_C	5	A
Total Power Dissipation	P_D	750	mW
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Volatge	BV_{CBO}	30	-	-	V	I_C=10μA
Collector-Emitter Breakdown Voltage	BV_{CEX}	20	-	-	V	I_C=1mA,V_{BE}=3V
	BV_{CEO}	10	-	-	V	I_C=1mA
Emitter-Base Breakdown Volatge	BV_{EBO}	6	-	-	V	I_E=10μA
Collector Cutoff Current	I_{CBO}	-	-	100	nA	V_{CB}=20V
Emitter Cutoff Current	I_{EBO}	-	-	100	nA	V_{BE}=4V
Collector-Emitter Saturation Voltage(1)	$V_{CE(sat)}$	-	0.3	0.4	V	I_C=3A, I_B=60mA
DC Current Gain(1)	h_{FE}	140	210	400	-	I_C=3A, V_{CE}=2V
Transition Frequency	f_T	-	200	-	MHz	I_C=50mA, V_{CE}=10V
Output Capacitance	C_{ob}	-	30	-	pF	V_{CB}=10V, f=1MHz

(1)Pulse Test: Pulse Width≦380μs, Duty Cycle≦2%

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