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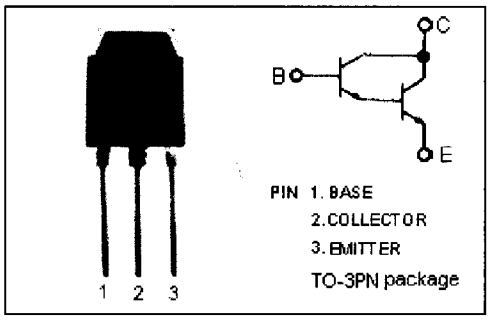
Silicon NPN Darlington Power Transistor

GT43

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 300V(Min)
- High DC Current Gain
  : h_{FE}= 2000(Min.)@ I_C= 4A
- Low Collector Saturation Voltage
  : $V_{CE(sat)}$= 3.0V(Max.)@ I_C= 6A

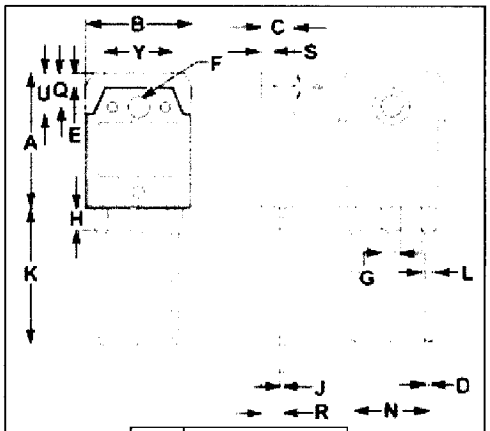


APPLICATIONS

- Switching for dynamotor excitation
- General purpose power amplifier

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ T_C=25℃	100	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.90	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.10
H	3.20	3.40
J	0.595	0.605
K	20.50	20.70
L	1.90	2.10
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C=10mA ;I_B=0	300			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C=1mA ;I_E=0	400			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E=50mA ;I_C=0	7			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C=1A; I_B=10mA			1.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C=6A; I_B=50mA			3.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 400V; I_E= 0			100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0			100	μA
h_{FE-1}	DC Current Gain	I_C= 4A; V_{CE}= 4V	2000			
h_{FE-2}	DC Current Gain	I_C= 5mA; V_{CE}= 4V	300