

isc Silicon NPN Darlington Power Transistor

GT43

DESCRIPTION

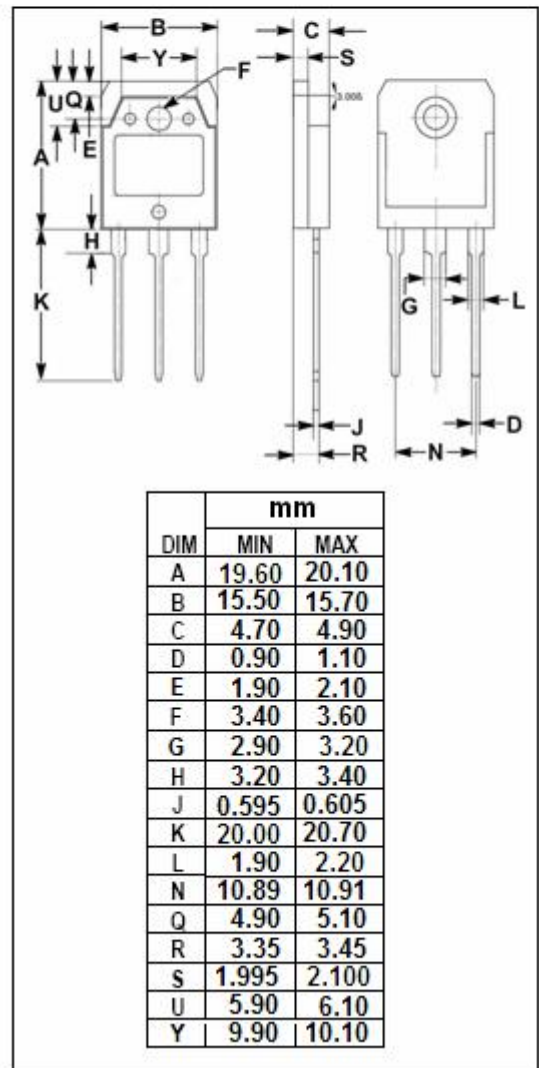
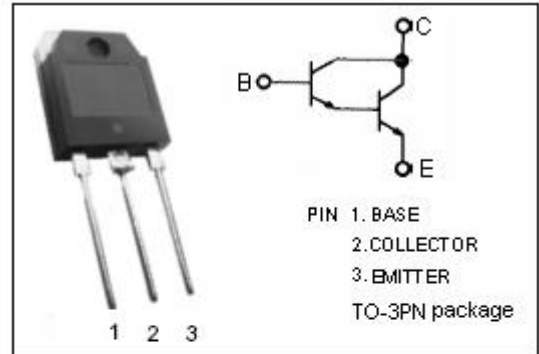
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 300V(\text{Min})$
- High DC Current Gain
: $h_{FE} = 2000(\text{Min.}) @ I_C = 4A$
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 3.0V(\text{Max.}) @ I_C = 6A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching for dynamotor excitation
- General purpose power amplifier

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

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 @ $T_C = 25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**GT43****ELECTRICAL CHARACTERISTICS****T_C=25°C 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	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			100	μ A
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			

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