

isc Silicon NPN Darlington Power Transistor

ISC2649

DESCRIPTION

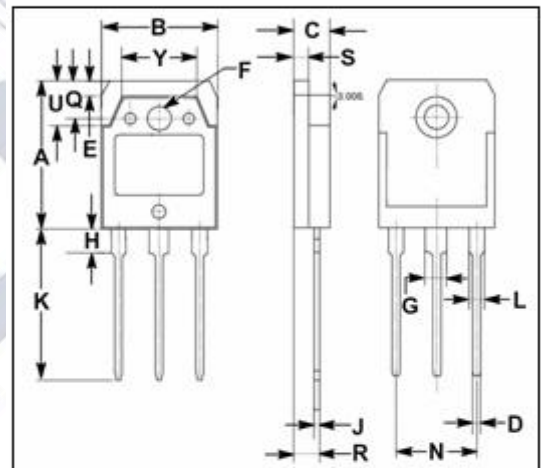
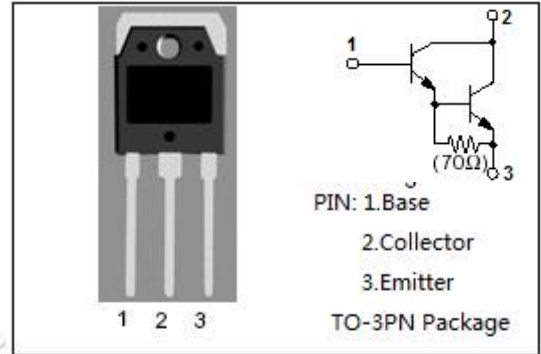
- Collector-Emitter Breakdown Voltage-
: $V_{CBO} = 200V(\text{Min})$
- High DC Current Gain-
: $h_{FE} = 5000(\text{Min.}) @ (I_C = 6A, V_{CE} = 4V)$
- Low Collector Saturation Voltage-
: $V_{CE(\text{sat})} = 2.5V(\text{Max}) @ (I_C = 6A, I_B = 6mA)$
- Complement to Type ISC2650

APPLICATIONS

- Designed for audio, series regulator and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	130	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	19.60	20.30
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	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

 T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 30mA ; I _B = 0	200			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 10mA			2.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 10A; I _B = 10mA			3.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 200V; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			100	μ A
h _{FE}	DC Current Gain	I _C = 10A; V _{CE} = 4V	5000			
f _T	Current-Gain—Bandwidth Product	I _E = 2A; V _{CE} = 12V		70		MHz