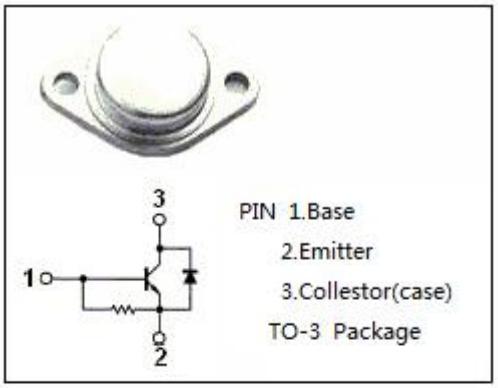
isc Silicon NPN Power Transistor — 2SD870

DESCRIPTION

- High Breakdown Voltage-
  : V_{CBO}= 1500V (Min)
- High Switching Speed
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 5.0V(Max.)@ I_C= 4A
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

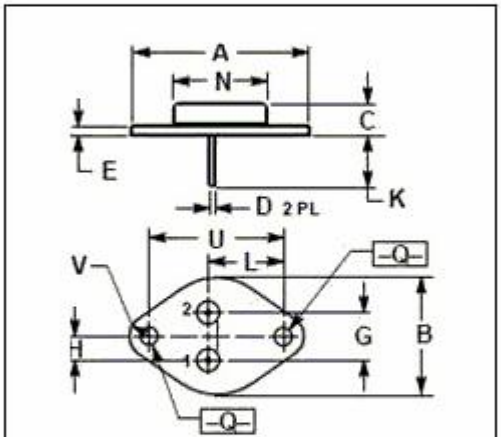


APPLICATIONS

- Designed for color TV horizontal output applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	5	A
I_E	Emitter Current- Continuous	5	A
P_C	Collector Power Dissipation @ T_C= 25℃	50	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{EBO}	Emitter-Base Breakdown Voltage	I_E= 200mA; I_C= 0	5.0			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A		3.0	5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 500V; I_E= 0			10	μA
h_{FE}	DC Current Gain	I_C= 1A; V_{CE}= 5V	8	12		
V_{ECF}	C-E Diode Forward Voltage	I_F= 5A		1.6	2.0	V
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f_{test}= 1.0MHz		165		pF
f_T	Current-Gain—Bandwidth Product	I_C= 0.1A; V_{CE}= 10V		3		MHz
t_f	Fall Time	I_C= 4A, I_{Bend}= 0.8A		0.5	1.0	μs

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