

isc Silicon NPN Power Transistor

2SD470

DESCRIPTION

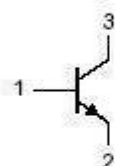
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 700V(\text{Min.})$
- High Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in horizontal deflection circuits of color TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1600	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1	A
I_{CM}	Collector Current-Peak	2	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	15	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

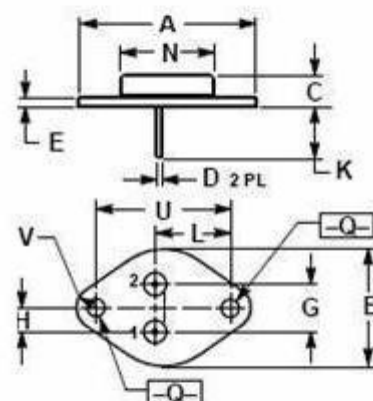


PIN 1. BASE

2. EMITTER

3. COLLECTOR (CASE)

TO-66 package



DIM	mm	
	MIN	MAX
A	31.40	31.80
B	17.30	17.70
C	6.70	7.10
D	0.70	0.90
E	1.40	1.60
G	5.08	
H	2.54	
K	9.80	10.20
L	14.70	14.90
N	12.40	12.60
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

isc Silicon NPN Power Transistor**2SD470****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 5mA ; I _B = 0	700			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 0.5A; I _B = 0.1A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 0.5A; I _B = 0.1A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 1000V ; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 0.1A ; V _{CE} = 5V	6		30	
h _{FE-2}	DC Current Gain	I _C = 1A ; V _{CE} = 5V	2			
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A ; V _{CE} = 5V		5		MHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V; f _{test} = 1.0MHz		40		pF

Switching Times; Resistive load

t _{stg}	Storage Time	I _C = 0.5A , I _{B(end)} = 0.1A			6.0	μ s
t _f	Fall Time				1.5	μ s

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