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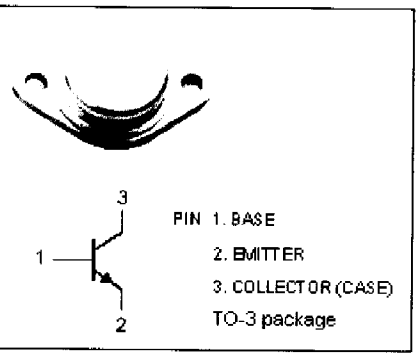
Silicon NPN Power Transistor — BU500

DESCRIPTION

- High Voltage-V_{CEX}= 1500V(Min.)
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V(Max.)@ I_C= 4.5A

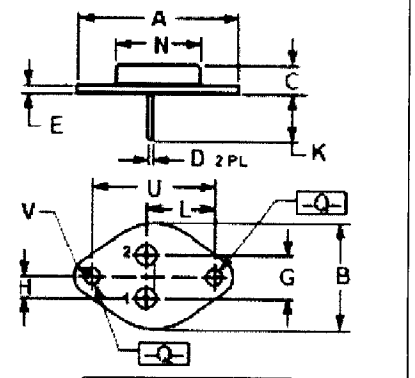
APPLICATIONS

- Designed for use in large screen color deflection circuits .



ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEX}	Collector-Emitter Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	6	A
I_{CM}	Collector Current-Peak	16	A
I_B	Base Current-Continuous	4	A
P_C	Collector Power Dissipation @T_C=25℃	75	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	9.30	11.10
D	0.90	1.10
E	2.90	3.10
G	10.92	
H	5.46	
K	11.40	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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.66	℃/W

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 500mA; I_B= 0; L= 10mH	700			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 100mA; I_C= 0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4.5A; I_B= 2A			1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 4.5A; V_{CE}= 2V			1.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 1000V; I_E= 0 V_{CB}= 1500V; I_E= 0			0.02 1.0	mA
I_{CEX}	Collector Cutoff Current	V_{CE}= 1500V; V_{BE}= -2Vt			1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 4V; I_C= 0			10	mA
h_{FE}	DC Current Gain	I_C= 4.5A; V_{CE}= 5V	3			

Switching Times

t_s	Storage Time	I_C= 4.5A; I_{B1}= -I_{B2}= 1.5A; V_{CC}= 100V			1.2	μs
t_f	Fall Time				1.0	μs