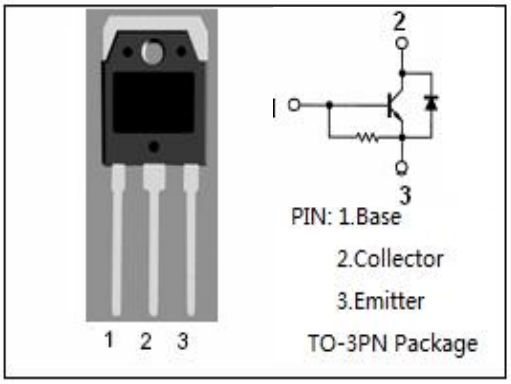
isc Silicon NPN Power Transistor — BU508DR

DESCRIPTION

- High Voltage Capability
- High Current Capability
- Fast Switching Speed
- Built-in Integrated Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

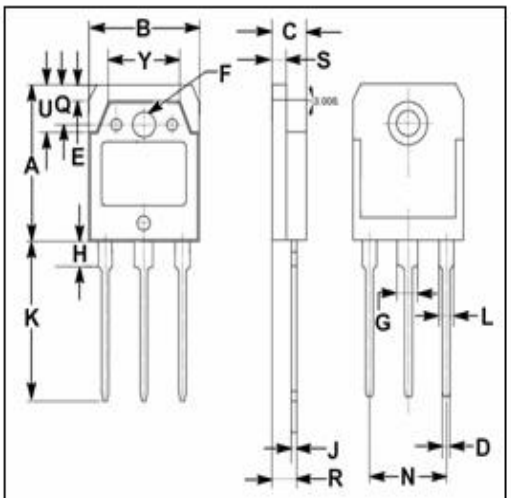
- Designed for use in large screen color deflection circuits .

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	8.0	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	4	A
I_{BM}	Base Current-Peak	6	A
P_C	Collector Power Dissipation @T_C=25℃	125	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.0	℃/W



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_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	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= 1.6A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4.5A; I_B= 2A			1.5	V
I_{CES}	Collector Cutoff Current	V_{CE}= 1500V; V_{BE}= 0 V_{CE}= 1500V; V_{BE}= 0; T_C= 125℃			0.5 2.0	mA
$h_{FE\ -1}$	DC Current Gain	I_C= 2.5A; V_{CE}= 5V	4.5			
$h_{FE\ -2}$	DC Current Gain	I_C= 4.5A; V_{CE}= 5V		3.2		
f_T	Current-Gain—Bandwidth Product	I_C= 0.1A; V_{CE}= 5V		7		MHz
V_{ECF}	C-E Diode Forward Voltage	I_F= 4.0A			1.5	V
C_{OB}	Output Capacitance	I_E=0;V_{CB}= 10V; f_{test}= 1MHz		125		pF