

isc Silicon NPN Power Transistor

BU4506AZ

DESCRIPTION

- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 800V$  (Min)
- High Switching Speed

APPLICATIONS

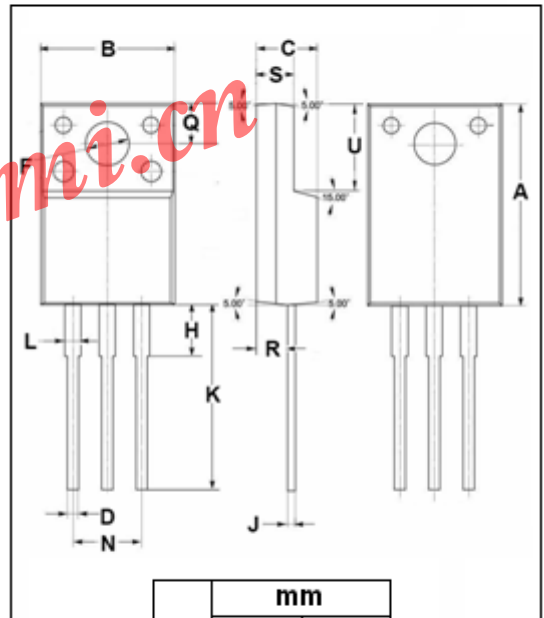
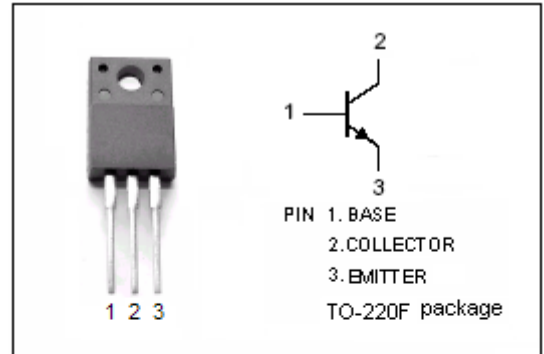
- Designed for use in horizontal deflection circuits of color TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CES}$	Collector- Emitter Voltage( $V_{BE} = 0$ )	1500	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	7.5	V
$I_C$	Collector Current- Continuous	5	A
$I_{CM}$	Collector Current-Peak	8	A
$I_B$	Base Current- Continuous	3	A
$I_{BM}$	Base Current-Peak	5	A
$P_C$	Collector Power Dissipation @ $T_C=25^{\circ}C$	32	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-65~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.9	$^{\circ}C/W$



DIM	mm	
	MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.80
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.85
U	6.40	6.60

## isc Silicon NPN Power Transistor

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## ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}; I_B=0, L=25\text{mH}$	800			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	7.5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.75\text{A}$			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.75\text{A}$			0.98	V
$I_{CES}$	Collector Cutoff Current	$V_{CE}=1500\text{V}; V_{BE}=0$ $V_{CE}=1500\text{V}; V_{BE}=0; T_C=125^\circ\text{C}$			1.0 2.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=7.5\text{V}; I_C=0$			1.0	mA
$h_{FE-1}$	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=5\text{V}$		10		
$h_{FE-2}$	DC Current Gain	$I_C=3\text{A}; V_{CE}=5\text{V}$	4.2		7.3	

Switching times (16kHz line deflection circuit)

$t_{stg}$	Storage Time	$I_C=3\text{A}, I_{B1}=0.6\text{A}; I_{B2}=-1.5\text{A}$			4.6	$\mu\text{s}$
$t_f$	Fall Time				0.45	$\mu\text{s}$