

isc Silicon NPN Power Transistor

BU2520AW

DESCRIPTION

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

APPLICATIONS

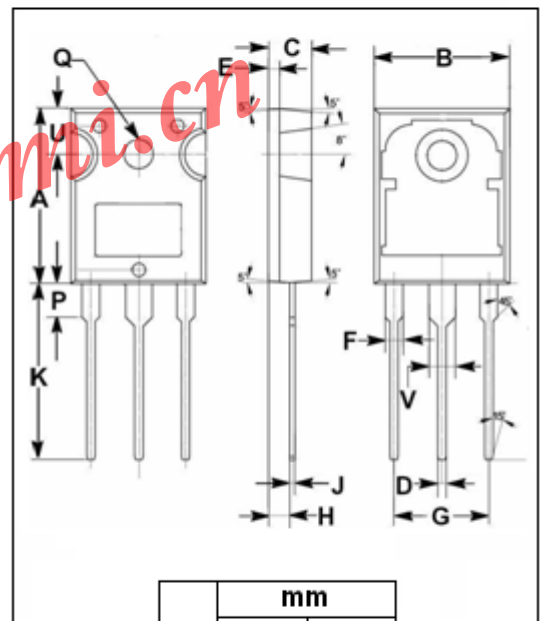
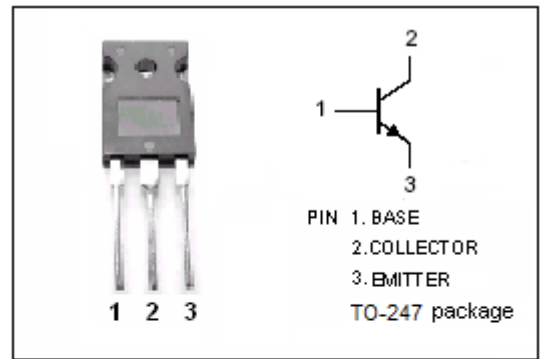
- Designed for use in horizontal deflection circuits of large screen color TV receivers

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	10	A
$I_{CM}$	Collector Current-Peak	25	A
$I_B$	Base Current- Continuous	6	A
$I_{BM}$	Base Current-Peak	9	A
$P_C$	Collector Power Dissipation @ $T_C=25^{\circ}C$	125	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}C$

THERMAL CHARACTERISTICS

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



DIM	mm	
	MIN	MAX
A	19.80	20.20
B	15.40	15.80
C	4.90	5.10
D	0.90	1.10
E	1.40	1.60
F	1.90	2.10
G	10.80	11.00
H	2.40	2.60
J	0.50	0.70
K	19.50	20.50
P	3.90	4.10
Q	3.30	3.50
U	5.20	5.40
V	2.90	3.10

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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	$I_C=6\text{A}; I_B=1.2\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=6\text{A}; I_B=1.2\text{A}$			1.1	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	$I_C=0.1\text{A}; V_{CE}=5\text{V}$		13		
$h_{FE-2}$	DC Current Gain	$I_C=6\text{A}; V_{CE}=5\text{V}$	5		9.5	
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1\text{MHz}$		115		pF

## Switching times

$t_{stg}$	Storage Time	$I_C=6\text{A}, I_{B(end)}=1.0\text{A}; L_C=650\mu\text{H};$ $L_B=5.3\mu\text{H}; C_{fb}=19\text{nF};$ $-V_{BB}=4\text{V}; (-dI_B/dt=0.8\text{A}/\mu\text{s})$			5.5	$\mu\text{s}$
$t_f$	Fall Time				0.5	$\mu\text{s}$