

# isc Silicon NPN Power Transistor

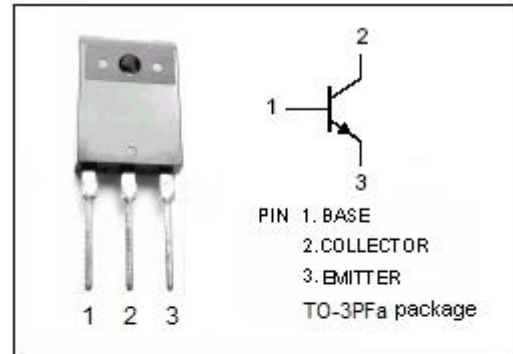
# BU2525AF

### DESCRIPTION

- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 800V$  (Min)
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

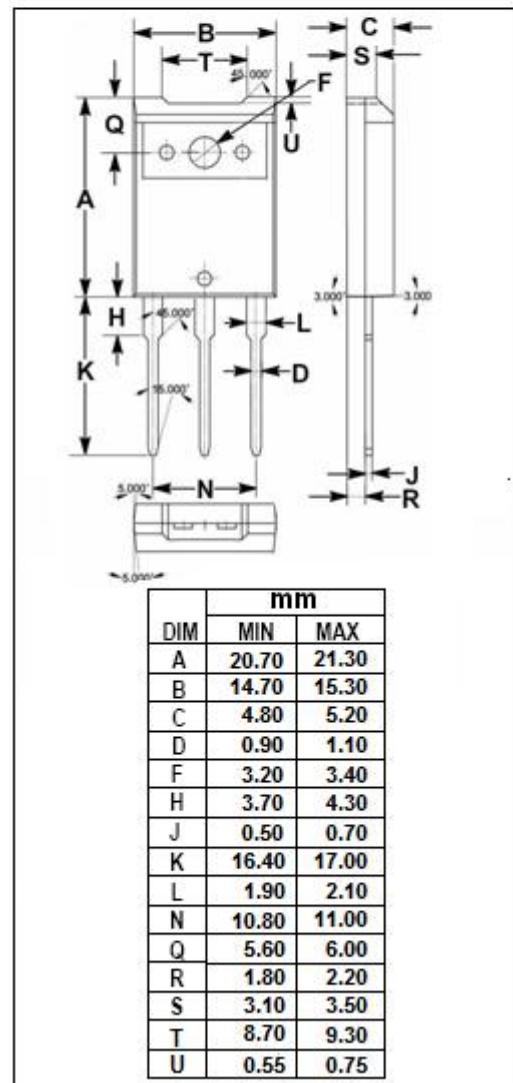
### APPLICATIONS

- Designed for use in horizontal deflection circuits of high resolution monitors.



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CESM}$	Collector- Emitter Voltage Peak value	1500	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	7.5	V
$I_C$	Collector Current- Continuous	12	A
$I_{CM}$	Collector Current-Peak	30	A
$I_B$	Base Current- Continuous	8	A
$I_{BM}$	Base Current-Peak	12	A
$P_C$	Collector Power Dissipation @ $T_c=25^{\circ}C$	45	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	2.8	$^{\circ}C/W$

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## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA; I <sub>B</sub> = 0	800			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 1mA; I <sub>C</sub> = 0	7.5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 8A; I <sub>B</sub> = 1.6A			5.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 8A; I <sub>B</sub> = 1.6A			1.1	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = 1500V; V <sub>BE</sub> = 0 V <sub>CE</sub> = 1500V; V <sub>BE</sub> = 0; T <sub>C</sub> =125°C			1.0 2.0	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 7.5V; I <sub>C</sub> = 0			1.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 0.1A; V <sub>CE</sub> = 5V		13		
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 8A; V <sub>CE</sub> = 5V	5	7	9.5	
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = 10V; f <sub>test</sub> = 1MHz		145		pF

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