

isc Silicon NPN Power Transistor

BU2520DF

DESCRIPTION

- High Switching Speed
- High Voltage
- Built-in Ddamper Ddiode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

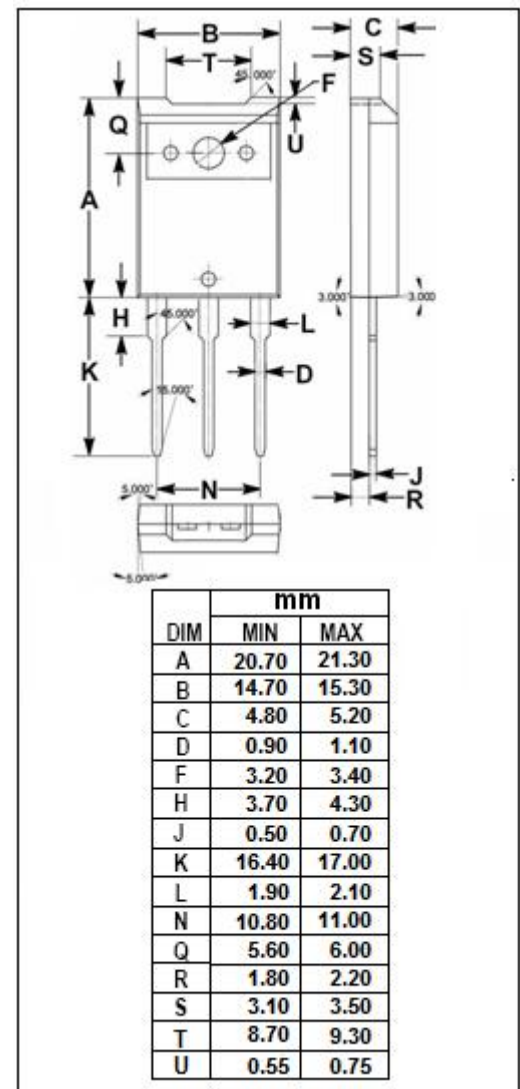
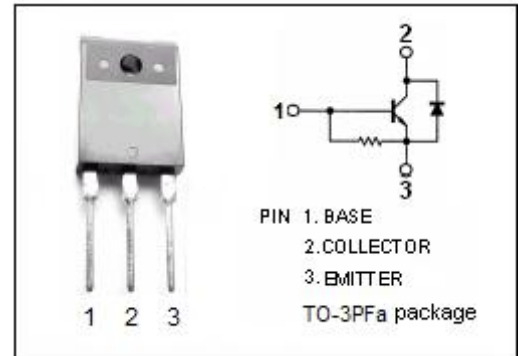
- For use in horizontal deflection circuits of large screen color TV receivers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	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 @ $T_c=25^{\circ}\text{C}$	45	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.8	K/W



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA; I _B = 0	800			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 600mA; I _C = 0	7.5	13.5		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A			1.1	V
I _{CES}	Collector Cutoff Current	V _{CE} = BV _{CES} ; V _{BE} = 0 V _{CE} = BV _{CES} ; V _{BE} = 0; T _C =125°C			1.0 2.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7.5V; I _C = 0	100		300	mA
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 5V		13		
h _{FE-2}	DC Current Gain	I _C = 6A; V _{CE} = 5V	5	7	9.5	
V _{ECF}	C-E Diode Forward Voltage	I _F = 6A			2.2	V
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V; f _{test} = 1MHz		115		pF

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