

NPN BU508DF

SILICON DIFFUSED POWER TRANSISTOR

The BU508DF is a NPN epitaxial-base transistor in TO3PFa package with integrated efficiency diode.

It is intended for high voltage, high-speed.

Primarily for use in horizontal deflection circuits of colour television receivers. Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit	
V _{CBO}	Collector-Base Voltage			1500	V	
V _{CEO}	Collector-Emitter Voltage			700	V	
V _{EBO}	Emitter-Base Voltage			5	V	
Ic	Collector Current			8	Α	
I _{CM}	Collector Current Peak			15	Α	
I _B	Base Current		4	Α		
I _{BM}	Base Current Peak		6	Α		
P _T	Total Dissipation	@ T _{mb} < 25°		34	W	
t J	Junction Temperature			150	°C	
t _s	Storage Temperature rang	е	-65 to +150			

THERMAL CHARACTERISTICS

Symbol	Ratings	Conditions	Value		Unit	
Syllibol		Conditions	Тур.	Max	Offic	
R _{thJC}	Junction To Heatsink	Without Heatsink Compound	-	3.7		
	Junction To Heatsink	nk With Heatsink Compound		2.8	K/W	
	Junction Ambient	In Free Air	35	ı		



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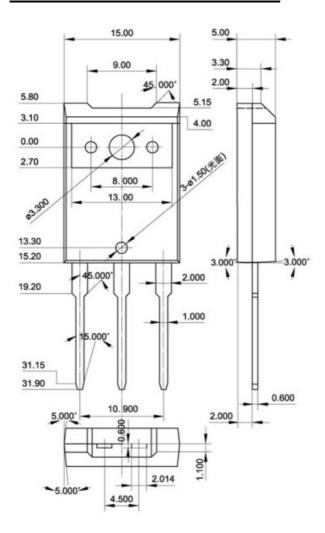
ELECTRICAL CHARACTERISTICS TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Тур	Max	Unit	
V _{CEO}	Collector-Emitter Breakdown Voltage	I _C = 100 mA, I _B =0 L= 25mH	700	-	-	V	
I _{CES}	Collector Cutoff Current	V _{BE} =0, V _{CE} = 1500 V	-	-	1	mA	
		$V_{BE} = 0, V_{CE} = 1500 \text{ V}$ $T_i = 125^{\circ}\text{C}$	-	-	2		
I _{EBO}	Emitter Cutoff Current	$V_{EB}=5 \text{ V}, I_{C}=0$	-	-	300	mA	
V _{CE(SAT)}	Collector-Emitter saturation Voltage	I _C = 4.5 A, I _B = 1.6 A	-	-	1	V	
V _{BE(SAT)}	Base-Emitter saturation Voltage	I _C = 4.5 A, I _B = 2 A	-	-	1.1		
V _F	Diode Forwardvoltage	I _F = 4.5 A	-	1.6	2	٧	
h _{FE}	DC Current Gain	I_{C} = 500 mA, V_{CE} = 5 V	10	-	30	-	
Сов	Output Capacitance	$VCB = 10 \text{ V}, I_E=0, f= 1MHz$	3	-	-	Α	
f _T	Transition Frequency	$V_{CE} = 5 \text{ V}, I_{C} = 100 \text{ mA}$	-	7	-	MHz	

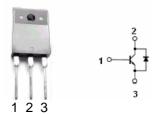


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MECHANICAL DATA CASE TO3PFa



Pin 1 :	Base
Pin 2 :	Collector
Case :	Emitter
Case :	Isolated



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