

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	
I _C	Collector Current	8	A		
I _{CM}	Collector Current Peak		15	A	
Ι _Β	Base Current		4	A	
ВМ	Base Current Peak		6	A	
Ρτ	Total Dissipation	@ T _{mb} < 25°	34	W	
tJ	Junction Temperature		150	°C	
t s	Storage Temperature range		-65 to +150		

THERMAL CHARACTERISTICS

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



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ELECTRICAL CHARACTERISTICS

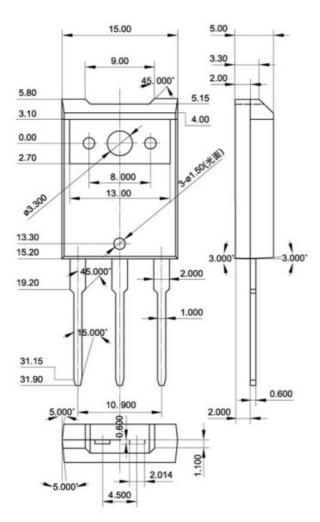
TC=25°C unless otherwise noted

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 C		V _{BE} =0, V _{CE} = 1500 V	-	-	1	mA
	Collector Cutoff Current	V _{BE} =0, V _{CE} = 1500 V T _i =125°C	-	-	2	
I _{EBO}	Emitter Cutoff Current	$V_{EB} = 5 \text{ V}, \text{ I}_{C} = 0$	-	-	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
V _F	Diode Forwardvoltage	I _F = 4.5 A	-	1.6	2	V
h _{FE}	DC Current Gain	I_{C} = 500 mA, V_{CE} = 5 V	10	-	30	-
C _{OB}	Output Capacitance	$VCB = 10 V$, $I_E=0$, $f= 1MHz$	3	-	-	Α
f _⊤	Transition Frequency	V_{CE} = 5 V, I _C = 100 mA	-	7	-	MHz

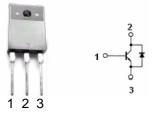


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MECHANICAL DATA CASE TO3PFa



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



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