

EVVOSEMI[®]

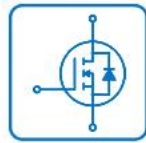
THINK CHANGE DO



ESD



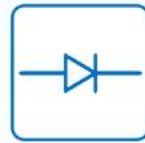
TVS



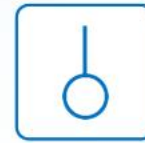
MOS



LDO



Diode



Sensor



DC-DC

Product Specification

▶ Domestic	Part Number	BU508D
▶ Overseas	Part Number	BU508D
▶ Equivalent	Part Number	BU508D

EV is the abbreviation of name EVVO

HORIZONTAL DEFLECTION TRANSISTOR

NPN BU508D 8A 1500V

Technical Data

...designed for use in large screen color deflection circuits.

- ☞ Collector-Emitter Voltage- $V_{CES}=1500V_{dc}$
- ☞ Low Thermal Resistance $1^{\circ}C/W$ increased Reliability
- ☞ TO-3PN Package for Low Cost Mounting
- ☞ Switching Times with Inductive Loads,
 $T_f=0.5\mu s(Typ)@I_C=4.5A$

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector- Emitter Voltage	V_{CEO}	700	Vdc
Collector- Emitter Voltage	V_{CES}	1500	Vdc
Emitter Base Voltage	V_{EB}	5	Vdc
Collector Current – Continuous	I_C	8	Adc
Peak(1)	I{CM}	15	
Base Current – continuous	I_B	4	Adc
-- Peak(1)	IBM	6	
<u>Total Power Dissipation @</u> <u>$TC = 25^{\circ}C$</u> Derate above $25^{\circ}C$	PD	125 1	Watts W/ $^{\circ}C$
Operating and Storage junction Temperature Range	T_j, T_{stg}	-65 to +150	$^{\circ}C$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Thermal resistance junction to case	R_{thjc}	1.0	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS : [$T_c = 25\text{ }^\circ\text{C}$ unless otherwise noted]

Characteristic	Symbol	Min	Typ	Max	Unit
* Off Characteristics :					
Collector–Emitter Sustaining Voltage (1) [$I_c = 100\text{ mA}_{dc}$, $I_B = 0$]	$V_{CE(sus)}$	700			Vdc
Collector Cutoff Current [$V_{CE} = 1500\text{ Vdc}$, $V_{BE} = 0$]	I_{CES}			0.1	mA _{dc}
Emitter Base Leakage [$V_{EB} = 6\text{V}$, $I_c = 0$]	I_{EBO}			300	mA _{dc}
* On Characteristics (1):					
DC Current Gain [$I_c = 2.0\text{ Adc}$, $V_{CE} = 4.0\text{ Vdc}$]	h_{FE}	2.25			
Collector-Emitter Saturation Voltage [$I_c = 4.5\text{ Adc}$, $I_B = 2\text{ Adc}$]	$V_{CE(sat)}$			1	Vdc
Base-Emitter Saturation Voltage [$I_c = 4.5\text{ Adc}$, $I_B = 2\text{ Adc}$]	$V_{BE(sat)}$			1.3	Vdc
Dynamic Characteristics :					
Current Gain – Bandwidth Product [$I_c = 0.1\text{ Adc}$, $V_{CE} = 5\text{ Vdc}$, $f_{test} = 1.0\text{ MHz}$]	f_T	---	7	--	MHz
Output Capacitance ($V_{CB} = 10\text{ Vdc}$, $I_E = 0$, $f = 0.1\text{ MHz}$)	C_{OB}	--	125	--	pF
SWITCHING CHARACTERISTICS					
Fall Time ($I_c = 4.5\text{ Adc}$, $I_B = 1.8\text{ Adc}$, $L_B = 10\text{ nH}$)	t_f	---	0.5	---	ns
	t_s		8		ns

(1) Pulse Test : Pulse Width = 5ms , Duty Cycle < 10.0%

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