HORIZONTAL DEFLECTION TRANSISTOR
NPN **BU407,** 7A 60W

Technical Data

… for Horizontal deflection output stages of TV's and CRT's.

- ☞ Collector-Emitter Voltage-V_{CES}=330Vdc
- ☞ Low Saturation Voltage:V_{CE}(sat)=1V(max)@5A
- ☞ TO-220 Package
- ☞ Fast Switching Speed:t_f=750 ns(max)

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector- Emitter Voltage	V_{CEO}	150	Vdc
Collector- Emitter Voltage	V_{CBO}	330	Vdc
Collector- Emitter Voltage	V_{CEV}	330	Vdc
Emitter Base Voltage	V_{EB}	6	Vdc
Collector Current – Continuous _Peak(1)	I_C I_{CM}	7 10	Adc
Base Current – continuous	I_B	4	Adc
Total Power Dissipation @ TC = 25°C Derate above 25°C	PD	60 0.48	Watts W/°C
Operating and Storage junction Temperature Range	Tj,Tstg	-65 to +150	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Thermal resistance junction to case	R_{thjc}	2.08	°C/W

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ELECTRICAL CHARACTERISTICS :[Tc = 25 °C unless otherwise noted]

Characteristic	Symbol	Min	Typ	Max	Unit
*** OFF CHARACTERISTICS :**					
Collector–Emitter Sustaining Voltage (1) [Ic =100 mAdc, I_B = 0]	$V_{CEO(sus)}$	150			Vdc
Collector Cutoff Current [V_{CE} = 400 Vdc, V_{BE} = 0]	I_{CES}			5	mAdc
Emitter Cutoff Current [V_{EB} = 6V, Ic = 0]	I_{EBO}			1	mAdc
*** ON CHARACTERISTICS (1):**					
DC Current Gain [Ic = 5 Adc , V_{CE} = 5.0 Vdc]	h_{FE}		28		
Collector-Emitter Saturation Voltage [Ic = 5 Adc , I_B = 0.5Adc)	$V_{CE(sat)}$			1	Vdc
Base-Emitter Saturation Voltage [Ic = 5 Adc , I_B = 0.5Adc]	$V_{BE(sat)}$			1.2	Vdc
DYNAMIC CHARACTERISTICS:					
Current Gain – Bandwidth Product [Ic = 0.5Adc,V_{CE}=10 Vdc, ftest=20 MHz]	f_T	10		--	MHz
Output Capacitance (V_{CB}=10Vdc,IE=0,f=1MHz)	C_{OB}	--	80	--	pF
SWITCHING CHARACTERISTICS					
Inductive Load Crossover Time [vcc=40Vdc,IC=5Adc, I_{B1}=I_{B2}=0.5Adc, L=150μH]	t_c	---		0.75	✪s

(1) Pulse Test : Pulse Width =300✪s , Duty Cycle < 2.0%