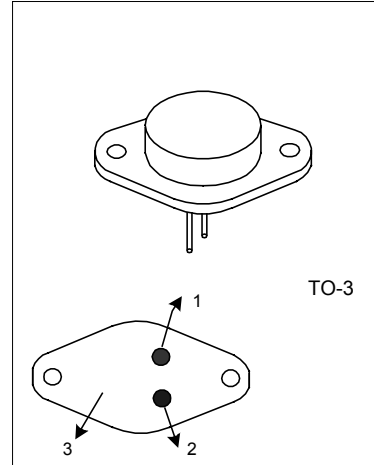


DESCRIPTION

The UTC BU208A is a high voltage, high power, high speed switching NPN transistor in a metal envelope, primarily for use in power supply and horizontal deflection circuits of color television receivers.



1: Base; 2: Emitter; 3: Collector

QUICK REFERENCE DATA

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-emitter voltage peak value	V <sub>CESM</sub>	V <sub>BE</sub> =0V		1500	V
Collector-emitter voltage (open base)	V <sub>CEO</sub>			700	V
Collector current (DC)	I <sub>C</sub>			8	A
Collector current peak value	I <sub>CM</sub>			15	A
Total power dissipation	P <sub>D</sub>	T <sub>c</sub> =25°C		150	W
Collector-emitter saturation voltage	V <sub>CEsat</sub>	I <sub>c</sub> =4.5A; I <sub>B</sub> =2.0A		1.0	V
Fall time	t <sub>f</sub>	I <sub>c</sub> =4.5A, I <sub>B1</sub> =-1/2 I <sub>B2</sub> =1.8A, V <sub>cc</sub> =100V		1.0	μs

LIMITING RATINGS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-emitter voltage peak value	V <sub>CESM</sub>	V <sub>BE</sub> =0V		1500	V
Collector-emitter voltage (open base)	V <sub>CEO</sub>			700	V
Collector current (DC)	I <sub>C</sub>			8	A
Collector current peak value	I <sub>CM</sub>			15	A
Base current (DC)	I <sub>B</sub>			2	A
Base current peak value	I <sub>BM</sub>			4	A
Total power dissipation	P <sub>D</sub>	T <sub>c</sub> =25°C		150	W
Storage temperature	T <sub>stg</sub>		-55	+150	°C
Junction temperature	T <sub>j</sub>			150	°C

# UTC BU208A SILICON DIFFUSED POWER TRANSISTOR

## ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-emitter cut-off current	$I_{CE}$	$V_{BE}=0V, V_{CE}=V_{CESMmax}$		1.0	mA
Collector-emitter cut-off current	$I_{CES}$	$V_{BE}=0V, V_{CE}=V_{CESMmax}, T_J=125^{\circ}C$		2.0	mA
Collector-emitter saturation voltage	$V_{CE0(SUS)}$	$I_B=0A, I_C=100mA, L=25mH$	700		V
Collector-emitter saturation voltage	$V_{CEsat}$	$I_C=4.5A, I_B=2.0A$		1.0	V
Base-emitter saturation voltage	$V_{BEsat}$	$I_C=4.5A, I_B=2.0A$		1.5	V
DC current gain	$H_{fe}$	$I_C=1A, V_{CE}=5V$	8		
Transition frequency at $f=1MHz$	$f_t$	$I_C=0.1A, V_{CE}=10V$	3		MHz
Switching times (16KHz line deflection circuit)	$t_s$			8.0	$\mu s$
Turn-off storage time Turn-off fall time	$t_f$	$I_C=4.5A, I_{B1}=-1/2 I_{B2}=1.8A, V_{CC}=100V$		1.0	$\mu s$

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