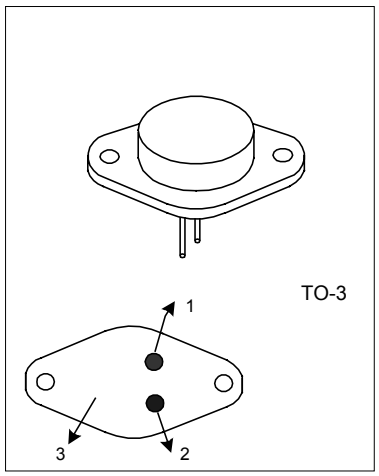
UTC BU208A SILICON DIFFUSED POWER TRANSISTOR

DESCRIPTION

The UTC BU208A is a high voltage, high power, high speed switching NPN transistor in a mental 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_{CESM}	V_{BE}=0V		1500	V
Collector-emitter voltage (open base)	V_{CEO}			700	V
Collector current (DC)	I_C			8	A
Collector current peak value	I_{CM}			15	A
Total power dissipation	P_D	Tc=25°C		150	W
Collector-emitter saturation voltage	V_{CEsat}	Ic=4.5A; I_B=2.0A		1.0	V
Fall time	tf	Ic=4.5A, I_{B1}=-1/2 I_{B2}=1.8A, Vcc=100V		1.0	μs

LIMITING RATINGS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-emitter voltage peak value	V_{CESM}	V_{BE}=0V		1500	V
Collector-emitter voltage (open base)	V_{CEO}			700	V
Collector current (DC)	I_C			8	A
Collector current peak value	I_{CM}			15	A
Base current (DC)	I_B			2	A
Base current peak value	I_{BM}			4	A
Total power dissipation	P_D	Tc=25°C		150	W
Storage temperature	Tstg		-55	+150	°C
Junction temperature	Tj			150	°C

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°C		2.0	mA
Collector-emitter saturation voltage	$V_{CEO(SUS)}$	I_B=0A, Ic=100mA, L=25mH	700		V
Collector-emitter saturation voltage	V_{CEsat}	Ic=4.5A, I_B=2.0A		1.0	V
Base-emitter saturation voltage	V_{BEsat}	Ic=4.5A, I_B=2.0A		1.5	V
DC current gain	H_{fe}	Ic=1A, V_{CE}=5V	8		
Transition frequency at f=1MHz	f_t	Ic=0.1A, V_{CE}=10V	3		MHz
Switching times (16KHz line deflection circuit)	t_S			8.0	μs
Turn-off storage time Turn-off fall time	tf	Ic=4.5A, I_{B1}=-1/2 I_{B2}=1.8A, Vcc=100V		1.0	μs