



Low Frequency Power Amp, Medium Speed Switching Applications

Features

- . Large allowable collector dissipation and wide ASO.
- . Low saturation voltage and good linearity of h_{FE} .
- . Suited for use in output stage of low-voltage high-output ($P_o=2W/V_{CC}=4.5V$) AF amp.

Absolute Maximum Ratings at $T_a=25^{\circ}\text{C}$

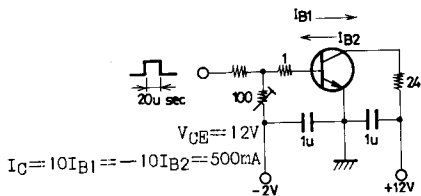
Collector to Base Voltage	V_{CBO}	(-)20	V
Collector to Emitter Voltage	V_{CEO}	(-)18	V
Emitter to Base Voltage	V_{EBO}	(-)5	V
Collector Current	I_C	(-)1.2	A
Peak Collector Current	i_{cp}	(-)2.0	A
Collector Dissipation	P_C	1	W
	$T_c=25^{\circ}\text{C}$	8	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics at $T_a=25^{\circ}\text{C}$

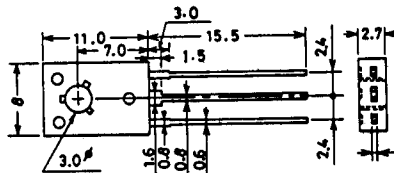
Electrical Characteristics		at Ta=25°C	min	typ	max	unit
C-B Breakdown Voltage	V(BR)CBO	I _C =(-)10uA, I _E =0	(-)20			V
C-E Breakdown Voltage	V(BR)CEO	I _C =(-)1mA, R _{BE} =∞	(-)18			V
E-B Breakdown Voltage	V(BR)EBO	I _E =(-)10uA, I _C =0	(-)5			V
Collector Cutoff Current	I _{CBO}	V _{CB} =(-)15V, I _E =0			(-)1	uA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)4V, I _C =0			(-)1	uA
DC Current Gain	h _{FE} (1)	V _{CE} =(-)2V, I _C =(-)500mA		60*	320*	
	h _{FE} (2)	V _{CE} =(-)2V, I _C =(-)1.5A (Pulse)	(40)	50		
Gain Bandwidth Product	f _T	V _{CE} =(-)10V, I _C =(-)50mA		150		MHz
Collector Capacitance	c _{ob}	V _{CB} =(-)10V, f=1MHz	(30)	20		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C =(-)1A, I _B =(-)50mA	(-0.35)	(-0.7)		V
			0.25	0.5		V
B-E Saturation Voltage	V _{BE(sat)}	I _C =(-)500mA, I _B =(-)50mA	(-)0.85	(-)1.2		V
Turn-ON Time	t _{on}	See specified Test Circuit.		50		ns
Storage Time	t _{stg}	"	(60)	70		ns
Fall Time	t _f	"		200		ns

60	D	120	100	E	200	160	F	320
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Switching Time Test Circuit



Case Outline 2009A



B: Base
C: Collector
E: Emitter