PRELIMINARY DATA SHEET

A60115

SFT 8500
2 AMP
HIGH VOLTAGE NPN TRANSISTOR
1000 VOLTS

14830 Valley View Avenue
La Mirada, California 90638
(213) 921-9660
TWX 910-583-4807
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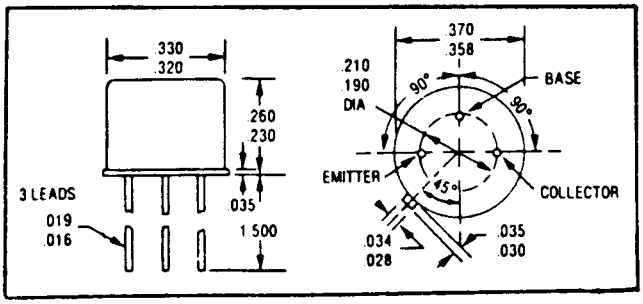
CASE STYLE W
JEDEC TO-5



FEATURES

- BVCEO 600 VOLTS MIN.
- LOW V_{CE} (SAT) 0.8V
- 175°C OPERATING, GOLD EUTECTIC DIE ATTACH
- LINEAR GAIN FROM 10mA TO 500mA
- HIGH SPEED
- GLASS PASSIVATED
- REPLACES PRODUCT PREVIOUSLY AVAILABLE IN TO-3 ONLY

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector - Emitter Voltage R_{BE} - 1K Ohms	V_{CEO} V_{CER}	600 1000	Volts Volts
Collector - Base Voltage	V_{CBO}	1000	Volts
Emitter - Base Voltage	V_{EBO}	6	Volts
Collector Current	I_C	2	Amps
Base Current	I_B	.75	mAmps
Total Device Dissipation @ TC = 25°C @ TA = 25°C Unheatsunk	P_D	10 1.0	Watts Watts
Operating and Storage Temperature	Tj, Tstg	-65 to +175°	C

THERMAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Thermal Resistance, Junction to Case	RθJC, (RθJA)	15, (150)	°C W

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Max.	Unit
Collector - Emitter Breakdown Voltage* (I_C = 10 mAdc) (I_C = 20 uAdc, R_{BE} = 1K ohms)	BV_{CEO}* BV_{CER}*	600 1000		Vdc Vdc
Collector - Base Breakdown Voltage (I_C = 20 uAdc)	BV_{CBO}	1000		Vdc
Emitter - Base Breakdown Voltage (I_E = 20 uAdc)	BV_{EBO}	6		Vdc

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NOTE: All specifications subject to change without notice.

ELECTRICAL CHARACTERISTICS

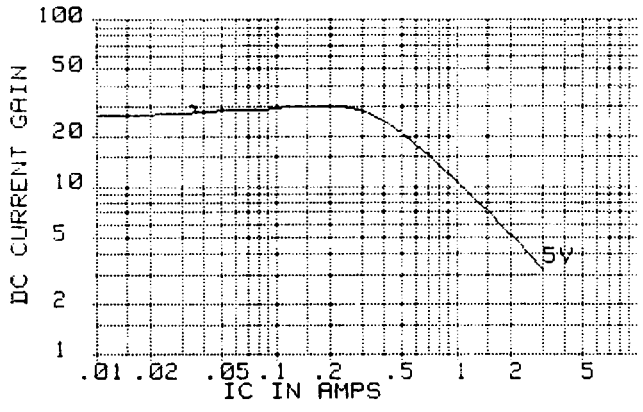
Characteristics	Symbol	Min.	Max.	Unit
Collector Cutoff Current (V_{CE} = 800V)	I_{CES}		10	uAdc
Collector Cutoff Current (V_{CB} = 800V)	I_{CBO}		10	uAdc
Emitter Cutoff Current (V_{EB} = 4V)	I_{EBO}		10	uAdc
DC Current Gain* (I_C = 20 m Adc, V_{CE} = 5 Vdc) (I_C = 100 m Adc, V_{CE} = 5 Vdc) (I_C = 500 m Adc, V_{CE} = 5 Vdc)	h_{FE}*	20 20 15	100 100 100	
Collector - Emitter Saturation Voltage* (I_C = 300 m Adc, I_B = 30 m Adc) (I_C = 1 Adc, I_B = 300 m Adc)	$V_{CE(SAT)}$*		0.8 1.0	Vdc Vdc
Base - Emitter Saturation Voltage* (I_C = 1 Adc, I_B = 200 mAdc)	$V_{BE(SAT)}$*		1.1	Vdc
Current - Gain - Bandwith Product (I_C = 100 m Adc V_{CE} = 5 Vdc f = 1 MHz)	f_T	30		MHz
Output Capacitance (V_{CB} = 20 Vdc, I_E = 0, f = 1 MHz)	C_{ob}		25	

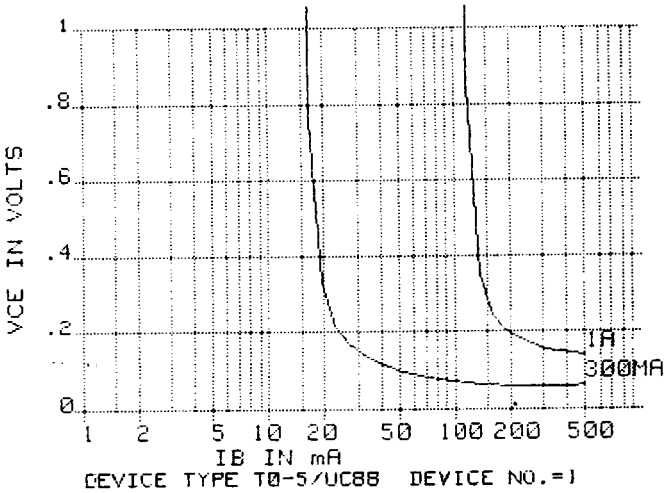
SWITCHING TIMES

Delay Time	(V_{CC} = 125 Vdc.	t_d		150	ns
Rise Time	I_C = 2 Adc. $IB_1 = IB_2$ = .2A)	t_r		200	ns
Storage Time		t_s		3000	ns
Fall Time		t_f		300	ns

*Pulse Test: Pulse width = 300 us, DutyCycle = 2%

TYPICAL OPERATING CURVES





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