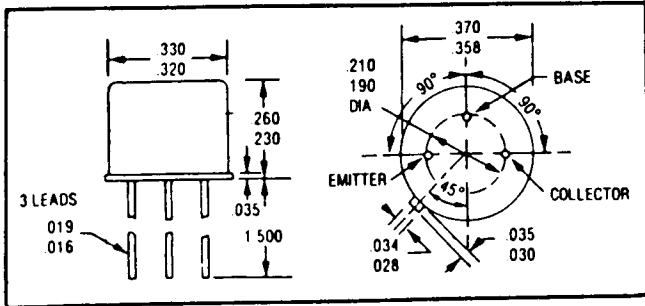


X00154

<h1 style="margin: 0;">SFT6200</h1> <h2 style="margin: 0;">10 AMP</h2> <h3 style="margin: 0;">RADIATION TOLLERANT NPN TRANSISTOR</h3> <h2 style="margin: 0;">150 VOLTS</h2>	
14830 Valley View Avenue La Mirada, California 90638 (213) 921-9660 TWX 910-583-4807 FAX 213-921-2396	

CASE STYLE W
JEDEC TO-5



FEATURES

- MIN hFE OF 10 AT 1A, 10V AFTER 1×10^{14} FAST NEUTRONS/CM²
- HIGH FREQUENCY, 150MHz TYPICAL
- ULTRA FAST, 150ns TYPICAL t_{on}
- BVCEO 80 VOLTS MIN
- HIGH LINEAR GAIN, VERY LOW SATURATION
- 200°C OPERATING TEMPERATURE
- GOLD EUTECTIC DIE ATTACH

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector - Emitter Voltage	V _{CEO}	80	Volts
R _{BE} 1K Ohms	V _{CER}	150	
Collector - Base Voltage	V _{CBO}	150	Volts
Emitter - Base Voltage	V _{EBO}	6	Volts
Collector Current	I _C	10	Amps
Base Current	I _B	2	Amps
Total Device Dissipation @ TC = 25°C	P _D	10	Watts
Derate above 25°C		66.6	mW/°C
Operating and Storage Temperature	T _J , T _{stg}	-65 to 200	°C

THERMAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Thermal Resistance, Junction to Case	R _{θJC}	15	°C/W

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Max.	Unit
Collector - Emitter Breakdown Voltage* (I _C = 10mA dc) (I _C = 20uA dc, R _{BE} = 1kOhm)	BV _{CEO} BV _{CER}	80		Vdc
Collector - Base Breakdown Voltage (I _C = 20uA dc)	BV _{CBO}	150		Vdc
Emitter - Base Breakdown Voltage (I _E = 20uA dc)	BV _{EBO}	6		Vdc

NOTE: All specifications subject to change without notice.

ELECTRICAL CHARACTERISTICS

Characteristics		Symbol	Min.	Max.	Unit
Collector Cutoff Current ($V_{CE} = 40 \text{ Vdc}$)		I_{CEO}		10	$\mu\text{A dc}$
Collector Cutoff Current ($V_{CB} = 100 \text{ Vdc}$)		I_{CBO}		10	$\mu\text{A dc}$
Emitter Cutoff Current ($V_{EB} = 4 \text{ Vdc}$)		I_{EBO}		1.0	$\mu\text{A dc}$
DC Current Gain* ($I_C = 500 \text{ mA dc}$, $V_{CE} = 10 \text{ Vdc}$) ($I_C = 1.0 \text{ A dc}$, $V_{CE} = 10 \text{ Vdc}$) ($I_C = 5.0 \text{ A dc}$, $V_{CE} = 5 \text{ Vdc}$)		h_{FE}	50 50 50	200	
Collector - Emitter Saturation Voltage* ($I_C = 5.0 \text{ A dc}$, $I_B = 500 \text{ mA dc}$)		$V_{CE(SAT)}$		0.5	Vdc
Base - Emitter Saturation Voltage* ($I_C = 5.0 \text{ A dc}$, $I_B = 500 \text{ mA dc}$)		$V_{BE(SAT)}$		1.2	Vdc
Current - Gain - Bandwidth Product ($I_C = 500 \text{ mA dc}$, $V_{CE} = 10 \text{ Vdc}$, $f = 1 \text{ MHz}$)		f_T	100		MHz
Output Capacitance ($V_{CB} = 10 \text{ Vdc}$, $f = 1 \text{ MHz}$)		C_{ob}		200	pf
Post Irradiation DC Current Gain* ($I_C = 1 \text{ A dc}$, $V_{CE} = 10 \text{ Vdc}$, $1 \times 10^{14} \text{ n/cm}^2$) (Fast Neutrons (n) at E = 10KeV Reactor Spectrum)		h_{FE}	10		
On Time	($V_{CC} = 30 \text{ Vdc}$, $I_C = 5.0 \text{ A dc}$)	t_{on}		200	ns
Off Time	($I_{B1} = I_{B2} = 500 \text{ mA dc}$)	t_{off}		800	ns

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

SSDI SOLID STATE DEVICES, INC.