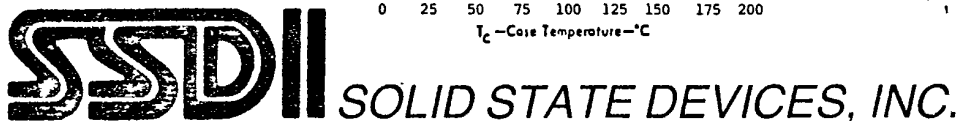
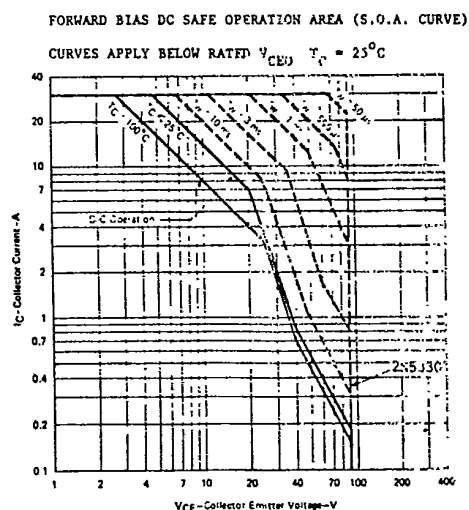
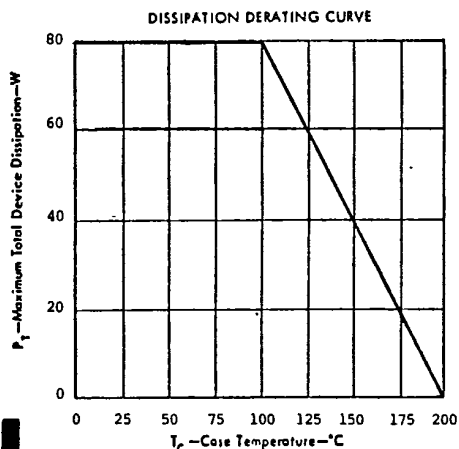


ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Max.	Unit		
Collector Cutoff Current ($V_{CE} = 150 \text{ Vdc}$, $V_{BE} = 500 \text{ mVdc}$)	I_{CEV}		10**	mAdc		
Collector Cutoff Current ($V_{CE} = 150 \text{ Vdc}$, $V_{BE} = 500 \text{ mVdc}$, $TC = 150^{\circ}\text{C}$)	I_{CEV}		50***	mAdc		
Emitter Cutoff Current ($V_{EB} = 8 \text{ Vdc}$)	I_{EBO}		5	mAdc		
DC Current Gain* ($I_C = 10 \text{ Adc}$, $V_{CE} = 2 \text{ Vdc}$) ($I_C = 30 \text{ Adc}$, $V_{CE} = 3 \text{ Vdc}$)	h_{FE}	40 10	120 50			
Collector - Emitter Saturation Voltage* ($I_C = 10 \text{ Adc}$, $I_B = 500 \text{ mAdc}$) ($I_C = 30 \text{ Adc}$, $I_B = 3 \text{ Adc}$)	$V_{CE (SAT)}$		0.6 1.8	vdc		
Base - Emitter Saturation Voltage* ($I_C = 10 \text{ Adc}$, $I_B = 300 \text{ mAdc}$) ($I_C = 30 \text{ Adc}$, $I_B = 3 \text{ Adc}$)	$V_{BE (SAT)}$		1.3 1.8	Vdc		
Current - Gain - Bandwith Product ($I_C = 3 \text{ Adc}$, $V_{CE} = 10 \text{ Vdc}$, $f = 10 \text{ MHz}$)	f_T	80		MHz		
Output Capacitance ($V_{CB} = 10 \text{ Vdc}$, $I_E = 0$, $f = 1 \text{ MHz}$)	C_{ob}		500	pf		
Input Capacitance ($V_{BE} = 1.0 \text{ Vdc}$, $I_C = 0$, $f = 1 \text{ MHz}$)	C_{ib}		1250	pf		
Delay Time ($V_{CC} = 21 \text{ Vdc}$)	t_d t_r t_s t_f	+	350	ns		
Rise Time					(t_{on})	
Storage Time						(t_{off})
Fall Time						
$I_C = 10 \text{ Adc}$, $I_{B1} = I_{B2} = 500 \text{ mAdc}$						

*Pulse Test: Pulse width = 300 us, DutyCycle = 2% **Typically 1 uAdc ***Typically 50 uAdc

TYPICAL OPERATING CURVES



2N6322 AND 2N6324

30 AMP NPN

HIGH VOLTAGE/HIGH ENERGY

200 VOLTS

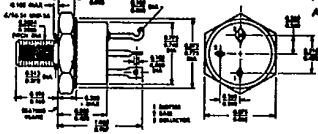


14830 Valley View Avenue
La Mirada, California 90638
(213) 921-9660
TWX 910-583-4807
FAX 213-921-2396

T-33-15

2N6324

THE COLLECTOR IS IN ELECTRICAL CONTACT WITH THE CASE
ALL JEDEC TO-18 DIMENSIONS
AND NOTES ARE APPLICABLE

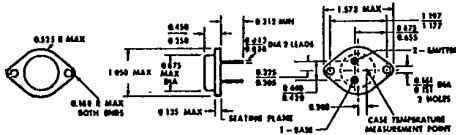


CASE TEMPERATURE MEASUREMENT POINT IS UNDERSIDE OF FLAT SURFACE WITHIN 0.125" FROM STUD

ALL DIMENSIONS ARE IN INCHES

2N6322

THE COLLECTOR IS IN ELECTRICAL CONTACT WITH THE CASE
ALL JEDEC TO-3 DIMENSIONS AND NOTES ARE APPLICABLE



ALL DIMENSIONS ARE IN INCHES

FEATURES

- MINIMUM BV_{CEO} 200V
- MINIMUM UNCLAMPED ES/B 100mJ
- 200 WATTS AT 100°C CASE TEMPERATURE
- 30 AMP CONTINUOUS COLLECTOR CURRENT
- 200°C OPERATING, GOLD EUTECTIC DIE ATTACH

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector - Emitter Voltage	V _{CEO}	200	Volts
Collector - Base Voltage	V _{CBO}	300	Volts
Emitter - Base Voltage	V _{EBO}	5	Volts
Collector Current	I _C	30	Amps
Base Current	I _B	10	Amps
Total Device Dissipation @ TC = 100 °C	P _D	200	Watts
Derate above 100 °C			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}	0.5	°C/W

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Max.	Unit
Collector - Emitter Breakdown Voltage* (I _C = 30 mA dc)	BV _{CEO} *	200		Vdc
Collector - Base Breakdown Voltage (I _C = 20 uA dc)	BV _{CBO}	300		Vdc
Emitter - Base Breakdown Voltage (I _E = 20 uA dc)	BV _{EBO}	5		Vdc

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NOTE: All specifications subject to change without notice.

ELECTRICAL CHARACTERISTICS

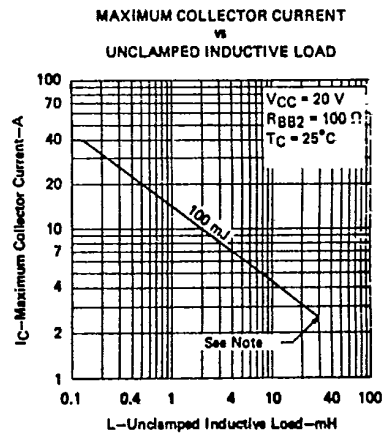
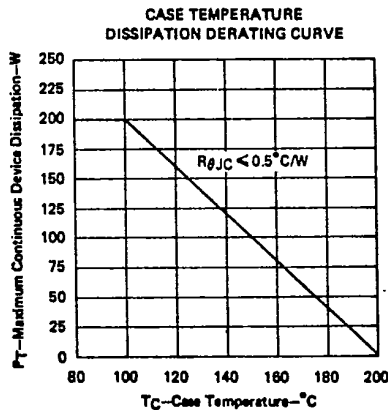
Characteristics	Symbol	Min.	Max.	Unit
Collector Cutoff Current $V_{CE} = 300V$ $V_{BE} = 0V$	I_{CES}		2	mAdc
Collector Cutoff Current ($V_{CE} = 100V$)	I_{CBO}		5	mAdc
Emitter Cutoff Current ($V_{EB} = 5V$)	I_{EBO}		5	mAdc
DC Current Gain* $(I_C = 5$ Adc. $V_{CE} = 5$ Vdc) $(I_C = 20$ Adc. $V_{CE} = 5$ Vdc) $(I_C = 30$ Adc. $V_{CE} = 5$ Vdc)	h_{FE}	40 12 6	150	
Collector - Emitter Saturation Voltage* $(I_C = 20$ Adc. $I_B = 2$ Adc) $(I_C = 30$ Adc. $I_B = 6$ Adc)	$V_{CE(SAT)}$		1.5 3.0	Vdc
Base - Emitter Voltage* $(I_C = 30$ Adc. $V_{CE} = 5$ V)	$V_{BE(on)}$ *		2.5	Vdc
Current - Gain - Bandwidth Product $(I_C = 1$ Adc. $V_{CE} = 10$ Vdc. $f = 5$ MHz)	f_T	10		MHz

SWITCHING TIMES

Delay Time	$(V_{CC} = 40$ Vdc. $V_{EB(Off)} = 3$ Vdc. $I_C = 20$ Adc)	t_d			
Rise Time		t_r +	800	ns	
Storage Time		t_s +			
Fall Time	$I_{B1} = I_{B2} = 2$ Adc)	t_f	3.0	us	

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

TYPICAL OPERATING CURVES



NOTE: ABOVE THIS POINT THE SAFE OPERATING AREA HAS NOT BEEN DEFINED.



SOLID STATE DEVICES INC

12E D

8366011 0002097 1

SFT5671 AND SFT5672

30 AMP

HIGH POWER NPN TRANSISTORS

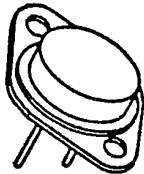
200 AND 250 VOLTS



14830 Valley View Avenue
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 FAX 213-921-2396

CASE STYLE R

TO-3 WITH .060 PINS



FEATURES

- BV_{CEO} TO 250 VOLTS
- HIGH POWER 150 WATTS
- 200°C OPERATING TEMPERATURE
- GOLD EUTECTIC DIE ATTACH
- SUPERIOR PERFORMANCE TO 2N5671 AND 2N5672

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector - Emitter Voltage SFT5671	V _{CEO}	120	Volts
Collector - Base Voltage SFT5672	V _{CBO}	140	Volts
Collector - Base Voltage SFT5671 : SFT5672	V _{CBO}	200 : 250	Volts
Emitter - Base Voltage	V _{EBO}	8	Volts
Collector Current	I _C	30	Amps
Base Current	I _B	10	Amps
Total Device Dissipation @ TC = 25 °C	P _D	150	Watts
Derate above 25 °C		1.0	W/ °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}	1.0	°C/W

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Max.	Unit
Collector - Emitter Breakdown Voltage* (I _C = 200 mA)	BV _{CEO} *	120		V _{dc}
Collector - Emitter Breakdown Voltage* (I _C = 200 mA, R _{BE} = 1000 ohms)	BV _{CER} *	140		V _{dc}
Collector - Base Breakdown Voltage (I _C = 200 mA)	BV _{CBO}	200		V _{dc}
Collector - Base Breakdown Voltage (I _C = 200 mA)	BV _{CBO}	250		V _{dc}
Emitter - Base Breakdown Voltage (I _E = 100 mA)	BV _{EBO}	8		V _{dc}

ELECTRICAL CHARACTERISTICS

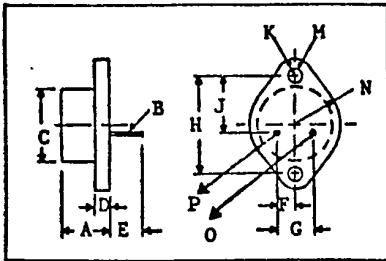
Characteristics	Symbol	Min.	Max.	Unit
Collector Cutoff Current $V_{CE} = 80 \text{ Vdc}$	I_{CEO}		50	$\mu\text{A dc}$
Collector Cutoff Current ($V_{CB} = 150 \text{ Vdc}$, SFT5671) ($V_{CB} = 200 \text{ Vdc}$, SFT5672)	I_{CBO}		10	$\mu\text{A dc}$
Emitter Cutoff Current ($V_{EB} = 7 \text{ Vdc}$)	I_{EBO}		5	$\mu\text{A dc}$
DC Current Gain* ($I_C = 15 \text{ A dc}$, $V_{CE} = 2 \text{ Vdc}$) ($I_C = 20 \text{ A dc}$, $V_{CE} = 5 \text{ Vdc}$) ($I_C = 30 \text{ A dc}$, $V_{CE} = 5 \text{ Vdc}$)	h_{FE}	30 25 20	100	
Collector - Emitter Saturation Voltage* ($I_C = 15 \text{ A dc}$, $I_B = 1.2 \text{ A dc}$) ($I_C = 30 \text{ A dc}$, $I_B = 6 \text{ A dc}$)	$V_{CE(SAT)}$		0.75 5.0	Vdc
Base - Emitter Saturation Voltage* ($I_C = 15 \text{ A dc}$, $I_B = 1.2 \text{ A dc}$)	$V_{BE(SAT)}$		1.5	Vdc
Small Signal Common-Emitter Forward Current Transfer Ratio ($I_C = 2 \text{ A dc}$, $V_{CE} = 10 \text{ Vdc}$ f = 5 MHz)	$ h_{fe} $	30		
Output Capacitance ($V_{CB} = 10 \text{ Vdc}$, $I_E = 0$ f = 1 MHz)	C_{ob}		500	pf

SWITCHING TIME

Turn on time ($V_{CC} = 30 \text{ Vdc}$, $I_C = 15 \text{ A dc}$, $I_{B1} = 1.2 \text{ A dc}$)	t_{on}		500	ns
Turn off time ($V_{CC} = 30 \text{ Vdc}$, $I_C = 15 \text{ A dc}$, $I_{B1} = I_{B2} = 1.2 \text{ A dc}$)	t_{off}		1.5	μs

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

PHYSICAL DIMENSIONS



KEY TO DIMENSIONS:

- (Inches)
- A = .250 - .450
 - B = .057 - .062
 - C = .875 MAX.
 - D = .135 MAX.
 - E = .312 MIN.
 - F = .205 - .225
 - G = .420 - .440
 - H = 1.177 - 1.197
 - J = .655 - .675
 - K = .188 MAX.
 - M = .151 - .161
 - N = .525 MAX.
 - O = BASE
 - P = EMITTER

