

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
 SPRINGFIELD, NEW JERSEY 07081
 U.S.A.

2N6470 Silicon N-P-N

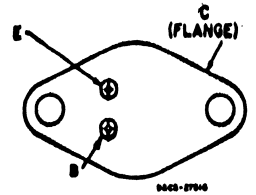
TELEPHONE: (973) 376-2922
 (212) 227-6005
 FAX: (973) 376-8960

Maximum Ratings, Absolute-Maximum Values:

*COLLECTOR-TO-BASE VOLTAGE	V _{CB0}	50	V
COLLECTOR-TO-EMITTER VOLTAGE:			
With external base-to-emitter resistance (R _{BE}) = 100 Ω	V _{CER}	50	V
With base open	V _{CEO}	40	V
*EMITTER-TO-BASE VOLTAGE	V _{EBO}	5	V
*CONTINUOUS COLLECTOR CURRENT	I _C	15	A
*CONTINUOUS BASE CURRENT	I _B	5	A
*TRANSISTOR DISSIPATION:	P _T		
At case temperatures up to 25°C		125	W
At case temperatures above 25°C		← Derate linearly 200°C →	
*TEMPERATURE RANGE:			
Storage & Operating (Junction)		← -65 to +200 → °C	
*PIN TEMPERATURE (During Soldering):			
At distances > 1/32" (0.8 mm) from seating plane for 10 s max.		← +235 → °C	

* In accordance with JEDEC registration data format (JES-6 ROF-2).

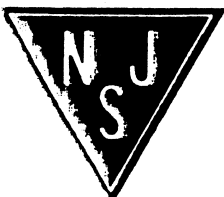
TERMINAL DESIGNATIONS



ELECTRICAL CHARACTERISTICS

At case temperature (T_C) = 25°C unless otherwise specified

CHARACTERISTIC	SYMBOL	TEST CONDITIONS			LIMITS		UNITS
		VOLT-AGE V _{dc}	CUR-RENT A _{dc}		2N6470		
		V _{CE}	I _C	I _B	Min.	Max.	
Collector-Cutoff Current: With external base-emitter resistance (R _{BE}) = 100 Ω	I _{CER}	35			—	500	μA
With base-emitter junction reverse-biased V _{BE} = -1.5 V	I _{CEX}	45			—	500	μA
With reverse bias, V _{BE} = -1.5 V, and T _C = 150°C		40			—	5	mA
With base open	I _{CEO}	20		0 0 0	—	1	mA
Emitter-Cutoff Current: V _{BE} = -5 V	I _{EBO}		0		—	1	mA
DC Forward-Current Transfer Ratio	h _{FE}	4 4	5 ^a 15 ^a		20 5	150 —	
Collector-to-Emitter Sustaining Voltage: With base open	V _{CEO(sus)}		0.2	0	40 ^b	—	V
With external base-emitter resistance (R _{BE}) = 100 Ω	V _{CER(sus)}		0.2		50 ^b	—	V
Base-to-Emitter Voltage	V _{BE}	4 4	5 ^a 15 ^a		—	1.3 3.5	V
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}		5 ^a 15 ^a	0.5 5	—	1.3 3.5	V
Magnitude of Common-Emitter Small-Signal Short-Circuit Forward-Current Transfer Ratio: f = 1 MHz	h _{fe}	4	1		5	—	
Common-Emitter, Small-Signal, Short-Circuit, Forward-Current Transfer Ratio: f = 1 kHz	h _{fe}	4	1		25	—	
Thermal Resistance: Junction-to-case	R _{θJC}				—	1.4	°C/W



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