

COMPLEMENTARY SILICON POWER TRANSISTORS

DESCRIPTION :

- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 1.0V(\text{Max.}) @ I_C = 15A$
- DC Current Gain : $h_{FE} = 20-100 @ I_C = 10A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

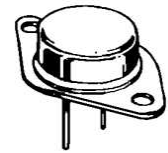
APPLICATIONS :

- Designed for general-purpose power amplifier and switching applications.

NPN

2N5886

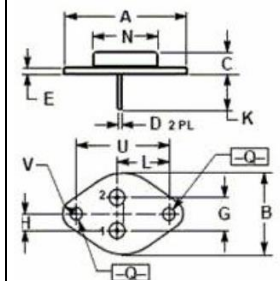
**25 AMPERES
COMPLEMENTARY
SILICON
POWER TRANSISTOR
80 VOLTS
200 WATTS**



TO-3

MAXIMUM RATINGS

Characteristic	Symbol	2N5886	Unit
Collector-Emitter Voltage	V_{CEO}	80	V
Collector-Base Voltage	V_{CBO}	80	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current-Continuous	I_C	25	A
Collector Current-Peak	I_{CM}	50	A
Base Current-Continuous	I_B	7.5	A
Collector Power Dissipation @TC=25°C	P_C	200	Watts
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-65 to +150	°C



PIN 1.BASE.
2.EMITTER
COLLECTOR(CASE)

DIM	MILLIMETERS	
	MIN	MAX
A	39.00	
B	25.3	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
O	4.00	4.20
U	30.00	30.20
V	4.30	4.50

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	R_{thj-c}	0.875	°C/W

ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min.	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Sustaining Voltage ($I_C = 200 \text{ mA}$, $I_B = 0$)	$V_{CEO(SUS)}$	80		V
Collector Cutoff Current ($V_{CE} = 40 \text{ V}$, $I_B = 0$)	I_{CEO}		2.0	mA
Collector Cutoff Current ($V_{CB} = 80 \text{ V}$, $I_E = 0$)	I_{CBO}		1.0	mA
Emitter Cutoff Current ($V_{EB} = 5.0 \text{ V}$, $I_C = 0$)	I_{EBO}		1.0	mA

ON CHARACTERISTICS(1)

DC Current Gain ($I_C = 3 \text{ A}$, $V_{CE} = 4 \text{ V}$) ($I_C = 10 \text{ A}$, $V_{CE} = 4 \text{ V}$) ($I_C = 25 \text{ A}$, $V_{CE} = 4 \text{ V}$)	h_{FE}	35 20 4	100	
Collector-Emitter Saturation Voltage ($I_C = 15 \text{ A}$, $I_B = 1.5 \text{ A}$) ($I_C = 25 \text{ A}$, $I_B = 6.25 \text{ A}$)	$V_{CE(SAT)}$		1.0 4.0	V
Base-Emitter Saturation Voltage ($I_C = 25 \text{ A}$, $I_B = 6.25 \text{ A}$)	$V_{BE(SAT)}$		2.5	V
Base-Emitter On Voltage ($I_C = 10 \text{ A}$, $V_{CE} = 4 \text{ V}$)	$V_{BE(ON)}$		1.5	V

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