COMPLEMENTARY SILICON POWER TRANSISTORS



MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)



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UNITS

DESCRIPTION:

SYMBOL

The CENTRAL SEMICONDUCTOR 2N5679, 2N5681 series devices are complementary silicon power transistors, manufactured by the epitaxial planar process, designed for general purpose amplifier and switching applications where high voltages are required.

2N5680 2N5682

MARKING: FULL PART NUMBER

2N5679

2N5681

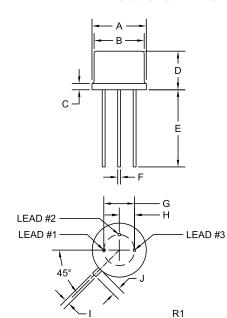
		STWIDGE	<u> 214300 I</u>	<u> 2143002</u>	UNITS				
Collector-Bas	e Voltage	V_{CBO}	100	120	V				
Collector-Emitter Voltage		VCEO	100	120	V				
Emitter-Base Voltage		V_{EBO}	4	.0	V				
Continuous C	Collector Current	IC	1	.0	Α				
Continuous B	ase Current	I_{B}	0	.5	Α				
Power Dissipation		P_D	1	.0	W				
Power Dissipation (T _C =25°C)		P_{D}	1	10					
Operating and Storage Junction Temperature		T _J , T _{stg}	-65 to	+200	°C				
Thermal Resistance		Θ_{JA}	1	75	°C/W				
Thermal Resistance		Θ JC	17	7.5	°C/W				
ELECTRICAL CHARACTERISTICS: (T _A =25°C unless otherwise noted)									
SYMBOL	TEST CONDITIONS		IIN	MAX	UNITS				
I _{CBO}	V _{CB} =Rated V _{CBO}			1.0	μΑ				
ICEV	V _{CE} =Rated V _{CEO} , V _{EB} =1.5V			1.0	μΑ				
I _{CEV} V _{CE} =Rated V _{CEO} , V _{EB} =1.5V, T		_C =150°C		1.0	mA				
I _{CEO}	V _{CE} =70V (2N5679, 2N5681)			10	μΑ				
I _{CEO}	V _{CE} =80V (2N5680, 2N5682)			10	μΑ				
I _{EBO}	V _{EB} =4.0V			1.0	μΑ				
BV CEO	I _C =10mA (2N5679, 2N5681)	1	00		V				
BV CEO	I _C =10mA (2N5680, 2N5682)	1	20		V				
V _{CE} (SAT)	I _C =250mA, I _B =25mA			0.6	V				
V _{CE} (SAT)	I _C =500mA, I _B =50mA			1.0	V				
V _{CE} (SAT)	I _C =1.0A, I _B =200mA			2.0	V				
V _{BE(ON)}	V _{CE} =2.0V I _C =250mA			1.0	V				
h _{FE} ` ´	V _{CE} =2.0V, I _C =250mA	4	10	150					
h_{FE}	V_{CE} =2.0V, I_{C} =1.0A	5	5.0						
h _{fe}	V _{CE} =1.5V, I _C =0.2A, f=1.0kHz	4	10						
fT	V _{CE} =10V, I _C =100mA, f=10MHz	3	30		MHz				
C _{ob}	V _{CB} =20V, I _E =0, f=1.0MHz			50	pF				

R2 (2-December 2013)

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TO-39 CASE - MECHANICAL OUTLINE



DIMENSIONS								
	INCHES		MILLIMETERS					
SYMBOL	MIN	MAX	MIN	MAX				
A (DIA)	0.335	0.370	8.51	9.40				
B (DIA)	0.315	0.335	8.00	8.51				
С	-	0.040	-	1.02				
D	0.240	0.260	6.10	6.60				
Е	0.500	-	12.70	-				
F (DIA)	0.016	0.021	0.41	0.53				
G (DIA)	0.200		5.08					
Н	0.100		2,54					
	0.028	0.034	0.71	0.86				
J	0.029	0.045	0.74	1.14				
TO 00 (DEV/, D4)								

TO-39 (REV: R1)

LEAD CODE:

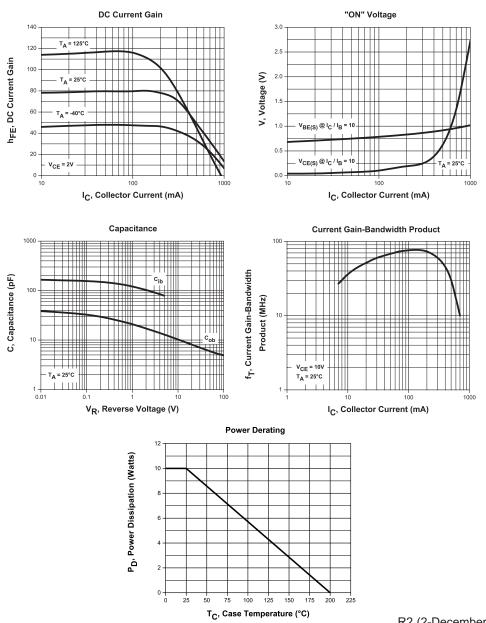
- 1) Emitter
- 2) Base
- 3) Collector

MARKING: FULL PART NUMBER



COMPLEMENTARY SILICON POWER TRANSISTORS

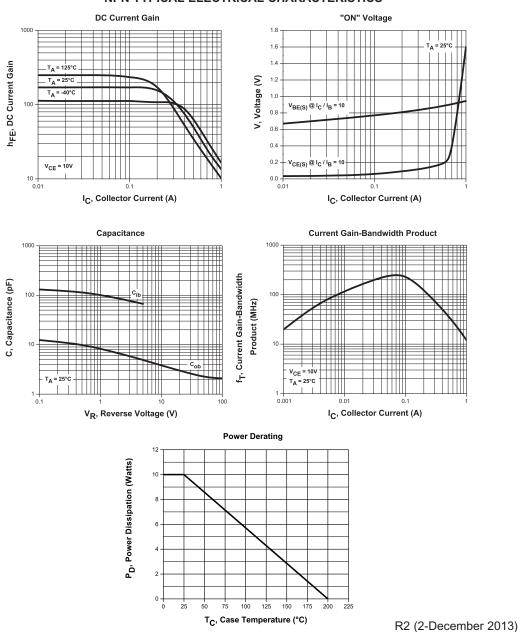
PNP TYPICAL ELECTRICAL CHARACTERISTICS





COMPLEMENTARY SILICON POWER TRANSISTORS

NPN TYPICAL ELECTRICAL CHARACTERISTICS



OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- · Inventory bonding
- · Consolidated shipping options

- · Custom bar coding for shipments
- · Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free guick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- · Custom electrical curves
- · Environmental regulation compliance
- · Customer specific screening
- · Up-screening capabilities

- Special wafer diffusions
- PbSn plating options
- · Package details
- Application notes
- · Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

- 1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
- 2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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