

2N5679 2N5680 PNP
2N5681 2N5682 NPN

**COMPLEMENTARY
SILICON POWER TRANSISTORS**



TO-39 CASE



www.centra-semi.com

DESCRIPTION:

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.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL	2N5679 2N5681	2N5680 2N5682	UNITS
Collector-Base Voltage	V_{CBO}	100	120	V
Collector-Emitter Voltage	V_{CEO}	100	120	V
Emitter-Base Voltage	V_{EBO}		4.0	V
Continuous Collector Current	I_C		1.0	A
Continuous Base Current	I_B		0.5	A
Power Dissipation	P_D		1.0	W
Power Dissipation ($T_C=25^\circ\text{C}$)	P_D		10	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200		$^\circ\text{C}$
Thermal Resistance	θ_{JA}		175	$^\circ\text{C/W}$
Thermal Resistance	θ_{JC}		17.5	$^\circ\text{C/W}$

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

		MIN	MAX	UNITS
I_{CBO}	$V_{CB}=\text{Rated } V_{CBO}$		1.0	μA
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{EB}=1.5\text{V}$		1.0	μA
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{EB}=1.5\text{V}, T_C=150^\circ\text{C}$		1.0	mA
I_{CEO}	$V_{CE}=70\text{V}$ (2N5679, 2N5681)		10	μA
I_{CEO}	$V_{CE}=80\text{V}$ (2N5680, 2N5682)		10	μA
I_{EBO}	$V_{EB}=4.0\text{V}$		1.0	μA
BV_{CEO}	$I_C=10\text{mA}$ (2N5679, 2N5681)	100		V
BV_{CEO}	$I_C=10\text{mA}$ (2N5680, 2N5682)	120		V
$V_{CE(SAT)}$	$I_C=250\text{mA}, I_B=25\text{mA}$		0.6	V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		1.0	V
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=200\text{mA}$		2.0	V
$V_{BE(ON)}$	$V_{CE}=2.0\text{V}, I_C=250\text{mA}$		1.0	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=250\text{mA}$	40	150	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=1.0\text{A}$	5.0		
h_{fe}	$V_{CE}=1.5\text{V}, I_C=0.2\text{A}, f=1.0\text{kHz}$	40		
f_T	$V_{CE}=10\text{V}, I_C=100\text{mA}, f=10\text{MHz}$	30		MHz
C_{ob}	$V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$		50	pF

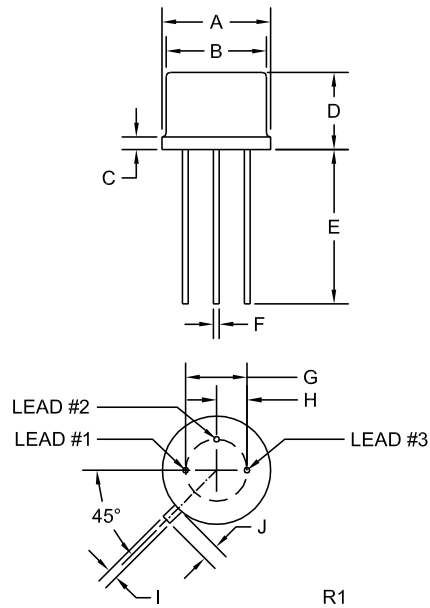
R2 (2-December 2013)

2N5679 2N5680 PNP
2N5681 2N5682 NPN

**COMPLEMENTARY
SILICON POWER TRANSISTORS**



TO-39 CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.335	0.370	8.51	9.40
B (DIA)	0.315	0.335	8.00	8.51
C	-	0.040	-	1.02
D	0.240	0.260	6.10	6.60
E	0.500	-	12.70	-
F (DIA)	0.016	0.021	0.41	0.53
G (DIA)	0.200		5.08	
H	0.100		2.54	
I	0.028	0.034	0.71	0.86
J	0.029	0.045	0.74	1.14

TO-39 (REV: R1)

LEAD CODE:

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

MARKING: FULL PART NUMBER

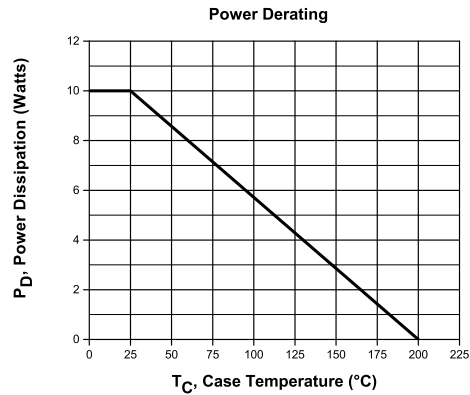
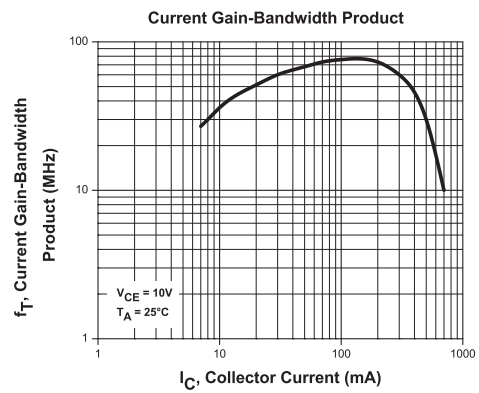
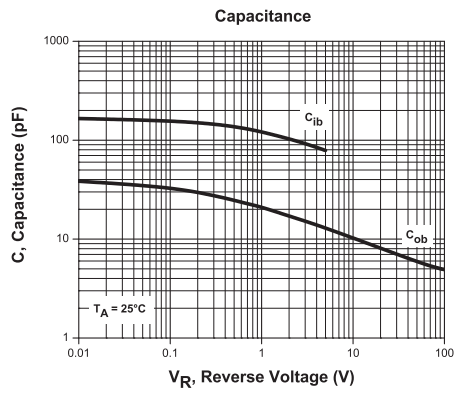
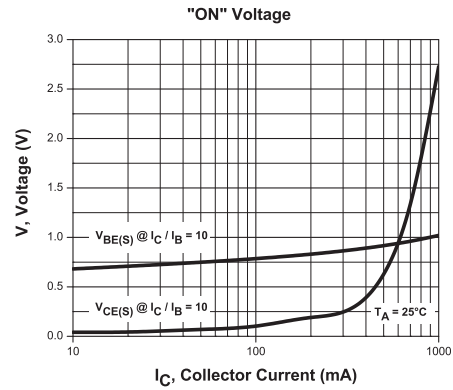
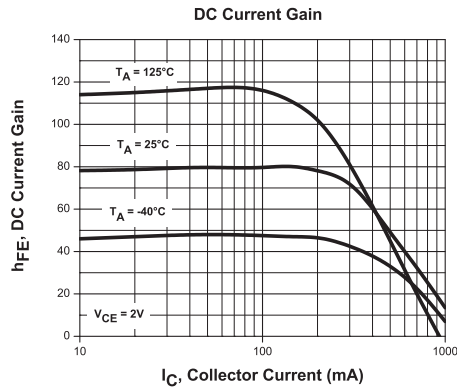
R2 (2-December 2013)

2N5679 2N5680 PNP
2N5681 2N5682 NPN

COMPLEMENTARY
SILICON POWER TRANSISTORS



PNP TYPICAL ELECTRICAL CHARACTERISTICS



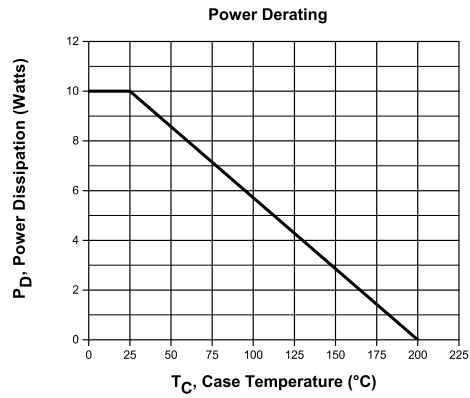
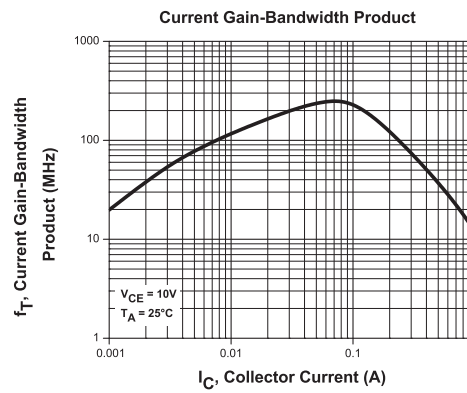
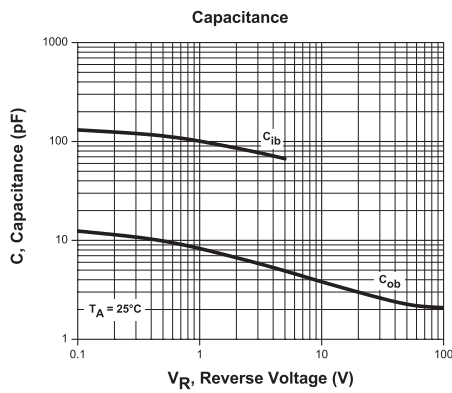
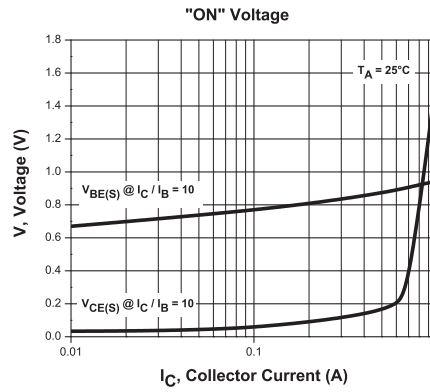
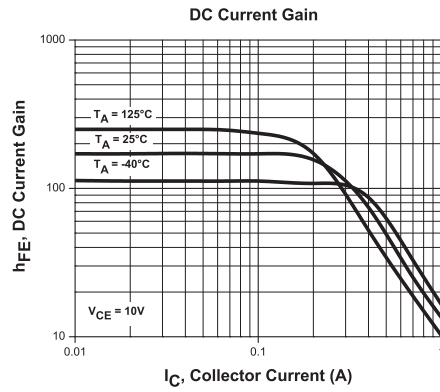
R2 (2-December 2013)

2N5679 2N5680 PNP
2N5681 2N5682 NPN

**COMPLEMENTARY
SILICON POWER TRANSISTORS**



NPN TYPICAL ELECTRICAL CHARACTERISTICS



R2 (2-December 2013)

AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692
Email amall@ameya360.com
QQ 800077892
Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333
Email mkt@ameya360.com