

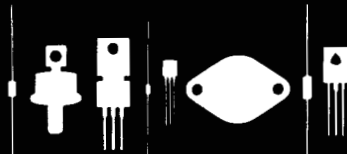
Central Semiconductor Corp.

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2N4231A	2N4232A	2N4233A	NPN
2N6312	2N6313	2N6314	PNP

COMPLEMENTARY SILICON
POWER TRANSISTORS

JEDEC TO-66 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4231A, 2N6312 series types are complementary silicon power transistors manufactured by the epitaxial base process mounted in a hermetically sealed metal case, designed for general purpose amplifier and switching applications.

MAXIMUM RATINGS ($T_C=25^\circ C$)

	SYMBOL	2N4231A 2N6312	2N4232A 2N6313	2N4233A 2N6314	UNIT
Collector-Base Voltage	V_{CB0}	40	60	80	V
Collector-Emitter Voltage	V_{CE0}	40	60	80	V
Emitter-Base Voltage	V_{EB0}		5.0		V
Collector Current	I_C		5.0		A
Collector Current-PEAK	I_{CM}		10		A
Base Current	I_B		2.0		A
Power Dissipation	P_D		75		W
Operating and Storage Junction Temperature	T_J, T_{STG}		-65 TO +200		$^\circ C$
Thermal Resistance	θ_{JC}		2.32		$^\circ C/W$

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

SYMBOL	TEST CONDITIONS	2N4231A 2N6312		2N4232A 2N6313		2N4233A 2N6314		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=\text{Rated } V_{CB0}$		0.05		0.05		0.05	mA
I_{CE0}	$V_{CE}=30V$		1.0		-		-	mA
I_{CE0}	$V_{CE}=50V$		-		1.0		-	mA
I_{CE0}	$V_{CE}=70V$		-		-		1.0	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CE0}, V_{BE}(\text{OFF})=1.5V$		0.1		0.1		0.1	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CE0}, V_{BE}(\text{OFF})=1.5V, T_C=150^\circ C$		1.0		1.0		1.0	mA
I_{EBO}	$V_{EB}=5.0V$		0.5		0.5		0.5	mA
BV_{CE0}	$I_C=100mA$	40		60		80		V
$V_{CE}(\text{SAT})$	$I_C=1.5A, I_B=0.15A$		0.7		0.7		0.7	V
$V_{CE}(\text{SAT})$	$I_C=3.0A, I_B=0.3A$		2.0		2.0		2.0	V
$V_{CE}(\text{SAT})$	$I_C=5.0A, I_B=1.25A$		4.0		4.0		4.0	V
$V_{BE}(\text{ON})$	$V_{CE}=2.0V, I_C=1.5A$		1.4		1.4		1.4	V
h_{FE}	$V_{CE}=2.0V, I_C=0.5A$	40		40		40		
h_{FE}	$V_{CE}=2.0V, I_C=1.5A$	25	100	25	100	25	100	
h_{FE}	$V_{CE}=2.0V, I_C=3.0A$	10		10		10		
h_{FE}	$V_{CE}=4.0V, I_C=5.0A$	4.0		4.0		4.0		
h_{fe}	$V_{CE}=10V, I_C=0.5A, f=1.0kHz$	20		20		20		
f_T	$V_{CE}=10V, I_C=0.5A, f=1.0MHz$	4.0		4.0		4.0		MHz
C_{ob}	$V_{CB}=10V, I_E=0V, f=0.1MHz$		300		300		300	pF

This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.