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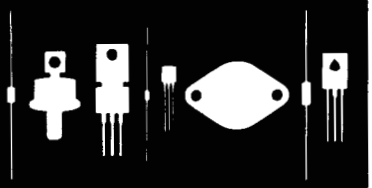
145 Adams Avenue
Hauppauge, New York 11788



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°C)

	SYMBOL	2N4231A 2N6312	2N4232A 2N6313	2N4233A 2N6314	UNIT
Collector-Base Voltage	V_{CBO}	40	60	80	V
Collector-Emitter Voltage	V_{CEO}	40	60	80	V
Emitter-Base Voltage	V_{EBO}		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		°C
Thermal Resistance	Θ_{JC}		2.32		°C/W

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

		2N4231A 2N6312		2N4232A 2N6313		2N4233A 2N6314		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	MIN	MAX	UNIT
I_{CBO}	V_{CB}=Rated V_{CBO}		0.05		0.05		0.05	mA
I_{CEO}	V_{CE}=30V		1.0		-		-	mA
I_{CEO}	V_{CE}=50V		-		1.0		-	mA
I_{CEO}	V_{CE}=70V		-		-		1.0	mA
I_{CEV}	V_{CE}=Rated V_{CEO}, $V_{BE(OFF)}$=1.5V		0.1		0.1		0.1	mA
I_{CEV}	V_{CE}=Rated V_{CEO}, $V_{BE(OFF)}$=1.5V, T_C=150°C		1.0		1.0		1.0	mA
I_{EBO}	V_{EB}=5.0V		0.5		0.5		0.5	mA
BV_{CEO}	I_C=100mA	40		60		80		V
$V_{CE(SAT)}$	I_C=1.5A, I_B=0.15A		0.7		0.7		0.7	V
$V_{CE(SAT)}$	I_C=3.0A, I_B=0.3A		2.0		2.0		2.0	V
$V_{CE(SAT)}$	I_C=5.0A, I_B=1.25A		4.0		4.0		4.0	V
$V_{BE(ON)}$	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

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