

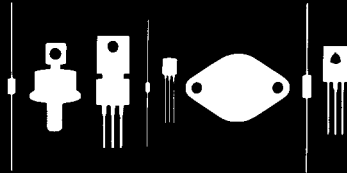
Central Semiconductor Corp.

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145 Adams Avenue
Hauppauge, New York 11788



2N5632 2N5633 2N5634 NPN
2N6229 2N6230 2N6231 PNP

COMPLEMENTARY SILICON POWER
TRANSISTORS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5632, 2N6229 series types are complementary silicon power transistors manufactured by the epitaxial base process mounted in a hermetically sealed metal case designed for high power amplifier and switching applications where high voltages are required.

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

	SYMBOL	2N5632 2N6229	2N5633 2N6230	2N5634 2N6231	UNIT
Collector-Base Voltage	V_{CB0}	100	120	140	V
Collector-Emitter Voltage	V_{CE0}	100	120	140	V
Emitter-Base Voltage	V_{EB0}	7.0	7.0	7.0	V
Collector Current	I_C	10	10	10	A
Collector Current (Peak)	I_{CM}	15	15	15	A
Base Current	I_B	5.0	5.0	5.0	A
Power Dissipation	PD	150	150	150	W
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 TO +200			$^\circ\text{C}$
Thermal Resistance	θ_{JC}	1.17			$^\circ\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	2N5632 2N6229		2N5633 2N6230		2N5634 2N6231		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=\text{Rated } V_{CB0}$		1.0		1.0		1.0	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CB0}, V_{EB}(\text{OFF})=1.5\text{V}$		1.0		1.0		1.0	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CB0}, V_{EB}(\text{OFF})=1.5\text{V}, T_C=150^\circ\text{C}$		5.0		5.0		5.0	mA
I_{CE0}	$V_{CE}=\frac{1}{2} \text{ Rated } V_{CB0}$		1.0		1.0		1.0	mA
I_{EB0}	$V_{BE}=7.0\text{V}$		1.0		1.0		1.0	mA
BV_{CE0}	$I_C=200\text{mA}$	100		120		140		V
$V_{CE}(\text{SAT})$	$I_C=7.5\text{A}, I_B=0.75\text{A}$		1.0		1.0		1.0	V
$V_{CE}(\text{SAT})$	$I_C=10\text{A}, I_B=2.0\text{A}$		2.0		2.0		2.0	V
$V_{BE}(\text{SAT})$	$I_C=7.5\text{A}, I_B=0.75\text{A}$		2.0		2.0		2.0	V
$V_{BE}(\text{ON})$	$V_{CE}=2.0\text{V}, I_C=5.0\text{A}$		1.5		1.5		1.5	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=5.0\text{A}$	25	100	20	80	15	60	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=10\text{A}$	5.0		5.0		5.0		
h_{fe}	$V_{CE}=10\text{V}, I_C=2.0\text{A}, f=1.0\text{kHz}$	15		15		15		
f_T	$V_{CE}=20\text{V}, I_C=1.0\text{A}, f=0.5\text{MHz}$	1.0		1.0		1.0		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$ (NPN types)		300		300		300	pF
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$ (PNP types)		600		600		600	pF

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