

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N4264

NPN SILICON TRANSISTOR

JEDEC TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4264 type is a Silicon NPN Transistors designed for high speed switching applications.

MAXIMUM RATINGS (T_A = 25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	30	V
Collector-Emitter Voltage	V _{CEO}	15	V
Emitter-Base Voltage	V _{EBO}	6.0	V
Collector Current	I _C	200	mA
Power Dissipation	P _D	625	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-55 to +150	°C
Thermal Resistance	θ _{JA}	200	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CEV}	V _{CE} = 12V, V _{BE(OFF)} = 0.25V		0.1	uA
I _{CEV}	V _{CE} = 12V, V _{BE(OFF)} = 0.25V, T _A = 100°C		10	uA
BV _{CEO}	I _C = 1.0mA	15		V
BV _{CB0}	I _C = 10uA,	20		V
BV _{EBO}	I _E = 10uA	6.0		V
V _{CE(SAT)}	I _C = 10mA, I _B = 1.0mA		0.22	V
V _{CE(SAT)}	I _C = 100mA, I _B = 10mA		0.35	V
V _{BE(SAT)}	I _C = 10mA, I _B = 1.0mA	0.65	0.80	V
V _{BE(SAT)}	I _C = 100mA, I _B = 10mA	0.75	0.95	V
h _{FE}	V _{CE} = 1.0V, I _C = 1.0mA	25		-
h _{FE}	V _{CE} = 1.0V, I _C = 10mA	40	160	-
h _{FE}	V _{CE} = 1.0V, I _C = 30mA	40		-
h _{FE}	V _{CE} = 1.0V, I _C = 100mA	30		-
h _{FE}	V _{CE} = 1.0V, I _C = 200mA	20		-
f _T	V _{CE} = 10V, I _C = 10mA, f = 100MHz	350		MHz
C _{ib}	V _{BE} = 0.5V, I _C = 0, f = 1.0MHz		8.0	pF
C _{ob}	V _{CB} = 5.0V, I _E = 0, f = 1.0MHz		4.0	pF

(Continued on Reverse Side)

ELECTRICAL CHARACTERISTICS (Continued)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
t_d	$V_{CC} = 10V, V_{BE(OFF)} = 2.0V, I_C = 100mA, I_{B1} = 10mA$		8.0	ns
t_r	$V_{CC} = 10V, V_{BE(OFF)} = 2.0V, I_C = 100mA, I_{B1} = 10mA$		15	ns
t_s	$V_{CC} = 10V, I_C = 10mA, I_{B1} = I_{B2} = 10mA$		20	ns
t_f	$V_{CC} = 10V, I_C = 100mA, I_{B1} = I_{B2} = 10mA$		15	ns
t_{on}	$V_{CC} = 3.0V, V_{BE(OFF)} = 1.5V, I_C = 10mA, I_{B1} = 3.0mA$		25	ns
t_{off}	$V_{CC} = 3.0V, I_C = 10mA, I_{B1} = 3.0mA, I_{B2} = 1.5mA$		35	ns
Q_T	$V_{CC} = 3.0V, I_C = 10mA, I_B = 1.0mA$		80	pC

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