Central
Semiconductor Corp.
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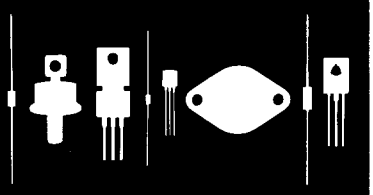

2N3646 2N5772 PN3646

JEDEC TO-106 JEDEC TO-92

NPN SILICON SWITCHING TRANSISTORS

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N/PN3646, 2N5772 Series types are Silicon PNP Transistors designed for ultra high speed switching applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	2N3646	2N5772 PN3646	UNIT
Collector-Base Voltage	V_{CBO}	40	40	V
Collector-Emitter Voltage	V_{CES}	40	40	V
Collector-Emitter Voltage	V_{CEO}	15	15	V
Emitter-Base Voltage	V_{EBO}	5.0	5.0	V
Collector Current	I_C	200	200	mA
Power Dissipation	P_D	200	625	mW
Operating Dissipation Junction Temperature	T_J, T_{stg}	-65 TO +150		°C

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CES}	V_{CE}=20V		0.5	μA
I_{CES}	V_{CE}=20V, T_A=65°C		3.0	μA
BV_{CBO}	I_C=100μA	40		V
BV_{CES}	I_C=10μA	40		V
BV_{CEO}	I_C=10mA	15		V
BV_{EBO}	I_E=100μA	5.0		V
$V_{CE(SAT)}$	I_C=30mA, I_B=3.0mA		0.2	V
$V_{CE(SAT)}$	I_C=100mA, I_B=10mA		0.28	V
$V_{CE(SAT)}$	I_C=300mA, I_B=30mA		0.5	V
$V_{CE(SAT)}$	I_C=30mA, I_B=3.0mA, T_A=65°C		0.3	V
$V_{BE(SAT)}$	I_C=30mA, I_B=3.0mA	0.75	0.95	V
$V_{BE(SAT)}$	I_C=100mA, I_B=10mA		1.2	V
$V_{BE(SAT)}$	I_C=300mA, I_B=30mA		1.7	V
h_{FE}	V_{CE}=0.4V, I_C=30mA	30	120	
h_{FE}	V_{CE}=0.5V, I_C=100mA	25		
h_{FE}	V_{CE}=1.0V, I_C=300mA	15		
f_T	V_{CE}=10V, I_C=30mA, f=100MHz	350		MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=1.0MHz		5.0	pF
C_{ib}	V_{BE}=0.5V, I_C=0, f=1.0MHz		8.0	pF
t_{on}	V_{CC}=10V, I_C=300mA, I_{B1}=30mA		18	ns
toff	V_{CC}=10V, I_C=300mA, I_{B1}=I_{B2}=30mA		28	ns
t_s	V_{CC}=10V, I_C=I_{B1}=I_{B2}=10mA		18	ns

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