Central
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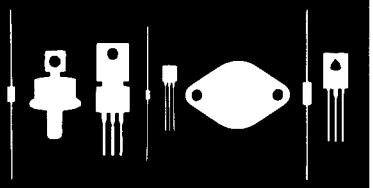
145 Adams Avenue
Hauppauge, New York 11788



2N3771
2N3772

NPN POWER TRANSISTOR

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3771, 2N3772 types are NPN silicon power transistors manufactured by the epitaxial base process designed for high power amplifier and switching applications.

MAXIMUM RATINGS (T_C=25°C)

	SYMBOL	2N3771	2N3772	UNIT
Collector-Base Voltage	V_{CBO}	50	100	V
Collector-Emitter Voltage	V_{CEO}	40	60	V
Collector-Emitter Voltage	V_{CEV}	50	80	V
Emitter-Base Voltage	V_{EBO}	5.0	7.0	V
Collector Current	I_C	15	10	A
Collector Current-Peak	I_{CM}	30	30	A
Base Current	I_B	7.5	5.0	A
Base Current-Peak	I_{BM}	15	15	A
Power Dissipation	P_D	150		W
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 to +200		°C
Thermal Resistance	ΘJC	1.17		°C/W

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

		2N3771		2N3772		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNIT
I_{CBO}	V_{CB}=Rated V_{CBO}		4.0		5.0	mA
I_{CEO}	V_{CE}=30V		10		-	mA
I_{CEO}	V_{CE}=50V		-		10	mA
I_{CEV}	V_{CE}=Rated V_{CBO}, V_{BE}=1.5V		2.0		5.0	mA
I_{CEV}	V_{CE}=30V, V_{BE}=1.5V, T_C=150°C		10		10	mA
I_{EBO}	V_{EB}=Rated V_{EBO}		5.0		5.0	mA
BV_{CEO}	I_C=0.2A	40		60		V
BV_{CEV}	V_{EB}=1.5V, I_C=0.2A, R_{BE}=100Ω	50		80		V
BV_{CER}	I_C=0.2A, R_{BE}=100Ω	45		70		V
$V_{CE(SAT)}$	I_C=10A, I_B=1.0A		-		1.4	V
$V_{CE(SAT)}$	I_C=15A, I_B=1.5A		2.0		-	V
$V_{CE(SAT)}$	I_C=20A, I_B=4.0A		-		4.0	V
$V_{CE(SAT)}$	I_C=30A, I_B=6.0A		4.0		-	V
$V_{BE(ON)}$	V_{CE}=4.0V, I_C=15A		2.7		-	V
$V_{BE(ON)}$	V_{CE}=4.0V, I_C=10A		-		2.2	V
h_{FE}	V_{CE}=4.0V, I_C=10A	-	-	15	60	
h_{FE}	V_{CE}=4.0V, I_C=15A	15	60	-	-	
h_{FE}	V_{CE}=4.0V, I_C=20A		-	5.0		
h_{FE}	V_{CE}=4.0V, I_C=30A	5.0			-	
h_{fe}	V_{CE}=4.0V, I_C=1.0A, f=1.0kHz	40		40		
f_T	V_{CE}=4.0V, I_C=1.0A, f=50kHz	0.2		0.2		MHz
$I_{s/b}$	V_{CE}=25V, t=1.0s	6.0		6.0		A

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824