

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

MPS3704
MPS3705
MPS3706

SILICON NPN TRANSISTOR

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS3704 thru MPS3706 are NPN silicon planar transistors for general purpose switching and amplifier applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	MPS3704		UNIT
		MPS3705	MPS3706	
Collector-Base Voltage	V _{CB0}	50	40	V
Collector-Emitter Voltage	V _{CE0}	30	20	V
Emitter-Base Voltage	V _{EB0}	5.0	5.0	V
Collector Current	I _C	600	600	mA
Power Dissipation	P _D	625	625	mW
Operating and Storage Junction Temperature	T _J , T _{STG}	-65 TO +150		°C

ELECTRICAL CHARACTERISTICS (T_A=25°C)

SYMBOL	TEST CONDITIONS	MPS3704		MPS3705		MPS3706		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =20V		100		100		100	nA
I _{EB0}	V _{EB} =3.0V		100		100		100	nA
BV _{CB0}	I _C =100μA	50		50		40		V
BV _{CE0}	I _C =10mA	30		30		20		V
BV _{EB0}	I _E =100μA	5.0		5.0		5.0		V
V _{CE(SAT)}	I _C =100mA, I _B =5.0mA		0.6		0.8		1.0	V
V _{BE(ON)}	V _{CE} =2.0V, I _C =100mA	0.5	1.0	0.5	1.0	0.5	1.0	V
h _{FE}	V _{CE} =2.0V, I _C =50mA	100	300	50	100	30	600	
f _T	V _{CE} =2.0V, I _C =50mA, f=20MHz	100		100		100		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		12		12		12	pF