

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

MPQ3725

NPN SILICON QUAD TRANSISTOR

JEDEC TO-116 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR MPQ3725 type is comprised of four independent silicon transistors mounted in a 14 PIN-DIP case, designed for core driver applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL		UNIT
Collector-Base Voltage	V _{CES}	60	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	5.0	V
Collector Current	I _C	1.0	A
Power Dissipation (each transistor)	P _D	1.0	W
Power Dissipation (total package)	P _D	2.5	W
Operating and Storage Junction Temperature	T _J , T _{STG}	-65 TO +150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I _{CBO}	V _{CB} =40V		500	nA
BV _{CES}	I _C =100μA	60		V
BV _{CEO}	I _C =10mA	40		V
BV _{EBO}	I _E =10μA	5.0		V
V _{CE(SAT)}	I _C =500mA, I _B =50mA	-	0.45	V
V _{BE(SAT)}	I _C =500mA, I _B =50mA	0.80	1.0	V
h _{FE}	V _{CE} =1.0V, I _C =100mA	35	200	
h _{FE}	V _{CE} =2.0V, I _C =500mA	25	-	
f _T	V _{CE} =10V, I _C =50mA, f=100MHz	250		MHz
t _{ON}	V _{BE(OFF)} =3.8V, I _C =500mA, I _{B1} =50mA		35	ns
t _{OFF}	I _C =500mA, I _{B1} =I _{B2} =50mA		60	ns
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		10	pF
C _{ib}	V _{EB} =0.5V, I _C =0, f=1.0MHz		80	pF

CONNECTION DIAGRAM

