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Manufacturers of World Class Discrete Semiconductors

2N5793

2N5794

NPN SILICON DUAL TRANSISTOR

JEDEC TO-78 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5793, 2N5794 types are silicon NPN dual transistors manufactured by the epitaxial planar process utilizing two individual chips mounted in a hermetically sealed metal case designed for differential amplifier applications.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL		UNIT
Collector-Base Voltage	V _{CB0}	75	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	6.0	V
Collector Current	I _C	600	mA
Power Dissipation (one die)	P _D	500	mW
Power Dissipation (both dice)	P _D	600	mW
Power Dissipation (one die, T _C =25°C)	P _D	1200	mW
Power Dissipation (both dice, T _C =25°C)	P _D	2000	mW
Operating and Storage Junction Temperature	T _J , T _{STG}	-65 TO +200	°C

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

SYMBOL	TEST CONDITIONS	2N5793		2N5794		UNIT
		MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =50V		10		10	nA
I _{EBO}	V _{EB} =4.0V		10		10	nA
I _{C1-C2}	V _{IC-2C} =±50V		±1.0		±1.0	nA
BV _{CB0}	I _C =10μA	75		75		V
BV _{CEO}	I _C =10mA	40		40		V
BV _{EBO}	I _E =10μA	6.0		6.0		V
V _{CE(SAT)}	I _C =150mA, I _B =15mA		0.3		0.3	V
V _{CE(SAT)}	I _C =300mA, I _B =30mA		0.9		0.9	V
V _{BE(SAT)}	I _C =150mA, I _B =15mA	0.6	1.2	0.6	1.2	V
V _{BE(SAT)}	I _C =300mA, I _B =30mA	-	1.8	-	1.8	V
h _{FE}	V _{CE} =10V, I _C =100μA	20	-	35	-	
h _{FE}	V _{CE} =10V, I _C =1.0mA	25	-	50	-	
h _{FE}	V _{CE} =10V, I _C =10mA	35	-	75	-	
h _{FE}	V _{CE} =1.0V, I _C =150mA	20	-	50	-	
h _{FE}	V _{CE} =10V, I _C =150mA	40	120	100	300	
h _{FE}	V _{CE} =10V, I _C =300mA	25	-	40	-	
f _T	V _{CE} =20V, I _C =20mA, f=100MHz	250		250		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=100kHz		8.0		8.0	pF
C _{ib}	V _{EB} =0.5V, I _C =0, f=100kHz		25		25	pF
t _{on}	V _{CC} =30V, V _{BE(OFF)} =0.5V, I _C =150mA, I _{B1} =15mA		40		40	ns
t _{off}	V _{CC} =30V, I _C =150mA, I _{B1} =I _{B2} =15mA		300		300	ns