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Manufacturers of World Class Discrete Semiconductors

CEN-U10

NPN SILICON POWER TRANSISTOR

JEDEC TO-202 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR CEN-U10 type is a NPN Silicon Power Transistor designed for high voltage amplifier applications. This device is an electrical equivalent to Motorola's MPSU10.

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

	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	300	V
Collector-Emitter Voltage	V _{CEO}	300	V
Emitter-Base Voltage	V _{EBO}	6.0	V
Collector Current	I _C	0.5	A
Power Dissipation	P _D	1.75	W
Power Dissipation (T _C = 25°C)	P _D	10	W
Operating and Storage			
Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	θ _{JA}	70	°C/W
Thermal Resistance	θ _{JC}	12.5	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} = 200V		0.2	μA
I _{EBO}	V _{BE} = 6.0V		0.1	μA
BV _{CB0}	I _C = 100μA	300		V
BV _{CEO}	I _C = 1.0mA	300		V
BV _{EBO}	I _E = 100μA	6.0		V
V _{CE(SAT)}	I _C = 20mA, I _B = 2.0mA		1.50	V
V _{BE(SAT)}	I _C = 20mA, I _B = 2.0mA		0.80	V
h _{FE}	V _{CE} = 10V, I _C = 1.0mA	25		
h _{FE}	V _{CE} = 10V, I _C = 10mA	40		
h _{FE}	V _{CE} = 10V, I _C = 30mA	40		
f _T	V _{CE} = 20V, I _C = 10mA, f = 100MHz	45		MHz
C _{ob}	V _{CB} = 20V, I _E = 0, f = 1.0MHz		3.0	pF