Central Semiconductor Corp.
Central™ Semiconductor Corp.
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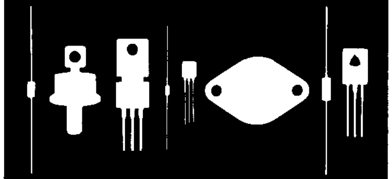

2N4863

NPN SILICON TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4863 type is an epitaxial planar silicon NPN transistor designed for high voltage, inductive load switching applications.

MAXIMUM RATINGS (T$_C$=25°C unless otherwise noted)

	SYMBOL		UNIT
Collector-Base Voltage	V_{CBO}	140	V
Collector-Emitter Voltage	V_{CEO}	120	V
Collector Current	I_C	2.0	A
Power Dissipation (T_C=100°C)	P_D	4.0	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C
Thermal Resistance	ΘJC	25	°C/W

ELECTRICAL CHARACTERISTICS (T$_C$=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CBO}	V_{CB}=60V		100	nA
I_{CEV}	V_{CE}=140V, V_{EB}=0.5V		10	μA
I_{CEO}	V_{CE}=60V		10	μA
I_{EBO}	V_{EB}=8.0V		10	μA
BV_{CBO}	I_C=1.0mA	140		V
BV_{CEO}	I_C=10mA	120		V
BV_{EBO}	I_E=10μA	8.0		V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		0.2	V
$V_{CE(SAT)}$	I_C=2.0A, I_B=200mA		1.5	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_C=500mA		1.2	V
h_{FE}	V_{CE}=5.0V, I_C=500mA	50	150	
h_{FE}	V_{CE}=5.0V, I_C=2.0A	15		
f_T	V_{CE}=20V, I_C=100mA	50		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		50	pF
t_{on}	V_{CC}=30V, I_C=1.0A, I_{B1}=I_{B2}=100mA		0.3 TYP	μs
t_{off}	V_{CC}=30V, I_C=1.0A, I_{B1}=I_{B2}=100mA		1.7	μs