

CentralTM
Semiconductor Corp.

DESCRIPTION

The CENTRAL SEMICONDUCTOR CMPT3019 type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for very high current, general purpose amplifier applications.

Marking Code is C3A.

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

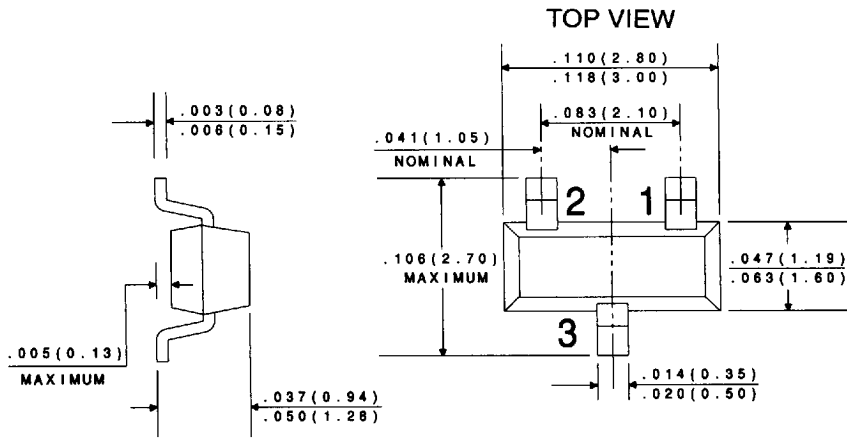
	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	7.0	V
Collector Current	I_C	500	A
Collector Current (Peak)	I_{CM}	1.0	A
Power Dissipation	P_D	350	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	357	$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=90\text{V}$		10	nA
I_{EBO}	$V_{EB}=5.0\text{V}$		10	nA
BV_{CBO}	$I_C=100\mu\text{A}$	120		V
BV_{CEO}	$I_C=30\text{mA}$	80		V
BV_{EBO}	$I_E=100\mu\text{A}$	7.0		V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.2	V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		0.5	V
$V_{BE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		1.1	V
h_{FE}	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	50		
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	90		
h_{FE}	$V_{CE}=10\text{V}, I_C=150\text{mA}$	100	300	
h_{FE}	$V_{CE}=10\text{V}, I_C=500\text{mA}$	50		
f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=1.0\text{MHz}$	100		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		12	pF
C_{ib}	$V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$		60	pF
NF	$V_{CE}=10\text{V}, I_C=100\text{mA}, R_G=1\text{k}\Omega, f=1.0\text{kHz}$		4.0	dB

1989963 0001817 464 166

All dimensions in inches (mm).



LEAD CODE:

- 1) BASE
- 2) EMITTER
- 3) COLLECTOR

DATA
SHEET

1989963 0001818 3T0

R2