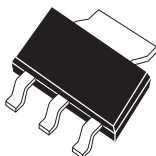


CZT3019

NPN SILICON TRANSISTOR



SOT-223 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZT3019 type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high current general purpose amplifier applications.

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

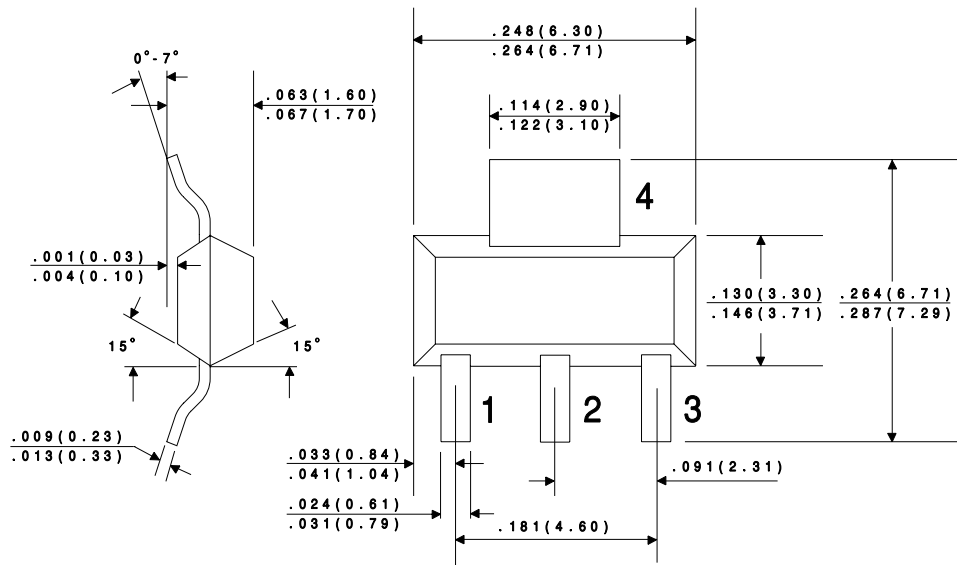
	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	7.0	V
Collector Current	I_{C}	1.0	A
Collector Current (Peak)	I_{CM}	1.5	A
Power Dissipation	P_{D}	2.0	W
Operating and Storage			
Junction Temperature	$T_{\text{J}}, T_{\text{stg}}$	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	62.5	$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{\text{CB}}=90\text{V}$		10	nA
I_{EBO}	$V_{\text{EB}}=5.0\text{V}$		10	nA
BV_{CBO}	$I_{\text{C}}=100\mu\text{A}$	120		V
BV_{CEO}	$I_{\text{C}}=30\text{mA}$	80		V
BV_{EBO}	$I_{\text{E}}=100\mu\text{A}$	7.0		V
$V_{\text{CE}}(\text{SAT})$	$I_{\text{C}}=150\text{mA}, I_{\text{B}}=15\text{mA}$		0.2	V
$V_{\text{CE}}(\text{SAT})$	$I_{\text{C}}=500\text{mA}, I_{\text{B}}=50\text{mA}$		0.5	V
$V_{\text{BE}}(\text{SAT})$	$I_{\text{C}}=150\text{mA}, I_{\text{B}}=15\text{mA}$		1.1	V
h_{FE}	$V_{\text{CE}}=10\text{V}, I_{\text{C}}=0.1\text{mA}$	50		
h_{FE}	$V_{\text{CE}}=10\text{V}, I_{\text{C}}=10\text{mA}$	90		
h_{FE}	$V_{\text{CE}}=10\text{V}, I_{\text{C}}=150\text{mA}$	100	300	
h_{FE}	$V_{\text{CE}}=10\text{V}, I_{\text{C}}=500\text{mA}$	50		
h_{FE}	$V_{\text{CE}}=10\text{V}, I_{\text{C}}=1.0\text{A}$	15		

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
f_T	$V_{CE}=10V, I_C=50mA, f=1.0MHz$	100		MHz
C_{ob}	$V_{CB}=10V, I_E=0, f=1.0MHz$		12	pF
C_{ib}	$V_{EB}=0.5V, I_C=0, f=1.0MHz$		60	pF
NF	$V_{CE}=10V, I_C=100\mu A, R_S=1k\Omega, f=1.0kHz$		4.0	dB

All dimensions in inches (mm).



LEAD CODE:

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