Elektronische Bauelemente

CZD2983

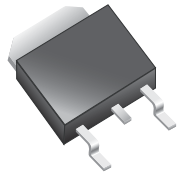
NPN Epitaxial Planar Silicon Transistor

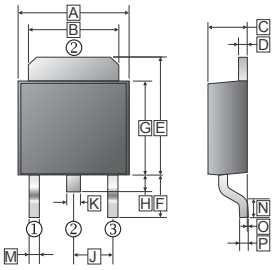
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

DESCRIPTION

The CZD2983 is designed for power amplifier and driver stage amplifier applications.

D-Pack (TO-252)





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.35	6.90	J	2.30 REF.	
B	4.95	5.50	K	0.64	1.14
C	2.10	2.50	M	0.50	1.14
D	0.43	0.9	N	1.3	1.8
E	6.0	7.5	O	0	0.13
F	2.80 REF		P	0.58REF.	
G	5.40	6.40			
H	0.60	1.20			

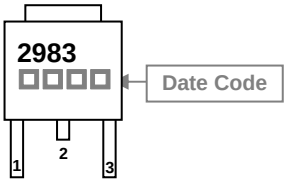
FEATURES

- High transition frequency：f_T = 100MHz (Typ.)
- Complements to CZD1225

CLASSIFICATION OF Hfe

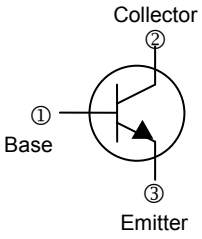
Rank	CZD2983-O	CZD2983-Y
Range	70 ~ 140	120 ~ 240

MARKING



PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13 inch



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter		Symbol	Ratings	Unit
Collector to Base Voltage		V_{CBO}	160	V
Collector to Emitter Voltage		V_{CEO}	160	V
Emitter to Base Voltage		V_{EBO}	5	V
Collector Current		I_C	1.5	A
Base Current		I_B	0.3	A
Total Device Dissipation	T_A=25°C	P_D	1	W
	T_C=25°C	P_D	15	W
Junction Temperature		T_J	150	℃
Storage Temperature		T_{STG}	-55 ~ 150	℃

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	BV_{CBO}	160	-	-	V	I_C= 1mA, I_E=0
Collector-emitter breakdown voltage	BV_{CEO}	160	-	-	V	I_C= 10mA, I_B=0
Emitter-base breakdown voltage	BV_{EBO}	5	-	-	V	I_E= 1mA, I_C=0
Collector cut-off current	I_{CBO}	-	-	1	μA	V_{CB}= 160V, I_E=0
Emitter cut-off current	I_{EBO}	-	-	1	μA	V_{EB}= 5V, I_C=0
Collector-emitter saturation voltage [1]	$V_{CE(sat)}$	-	-	1.5	V	I_C= 500mA, I_B= 50mA
Base-emitter saturation voltage [1]	$V_{BE(on)}$	-	-	1.0	V	V_{CE}= 5V, I_C= 500mA
DC current gain [1]	h_{FE}	70	-	240		V_{CE}= 5V, I_C= 100mA
Transition frequency	f_T	-	100	-	MHz	V_{CE}= 10V, I_C= 100mA
Output Capacitance	C_{OB}	-	25	-	pF	V_{CB}=10V, I_E=0, f=1MHz

Note:
1. Measured under pulse condition. Pulse width ≦ 300μs, Duty Cycle ≦ 2%

CHARACTERISTIC CURVES