

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

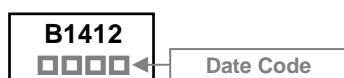
DESCRIPTION

CZD1386 is designed for low frequency applications.

FEATURES

- Low $V_{CE(sat)}$
- Excellent DC current gain characteristics

MARKING

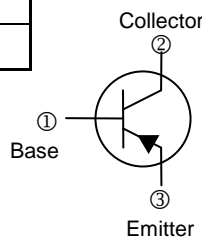


PACKAGE INFORMATION

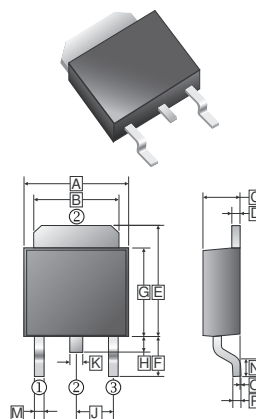
Package	MPQ	Leader Size
TO-252	2.5K	13 inch

CLASSIFICATION OF h_{FE1}

Rank	P	Q	R
Range	82 - 180	120 - 270	180 - 390



TO-252 (D-Pack)



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.35	6.90	J	2.336	REF.
B	4.95	5.50	K	0.89	REF.
C	2.10	2.50	M	0.50	1.14
D	0.665 Typ.		N	1.55 Typ.	
E	6.0	7.5	O	0	0.13
F	2.90 REF.		P	0.58 REF.	
G	5.40	6.40			
H	0.60	1.20			

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-30	V
Collector to Emitter Voltage	V_{CEO}	-20	V
Emitter to Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-5	A
Pulsed Collector Current ¹	I_C	-10	A
Total Power Dissipation	P_C	20	W
Junction and Storage Temperature	T_J, T_{STG}	150, -55 ~ 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-30	-	-	V	$I_C = -50\mu\text{A}, I_E = 0$
Collector-Emitter breakdown Voltage	$V_{(BR)CEO}$	-20	-	-	V	$I_C = -1\text{mA}, I_B = 0$
Emitter-Base breakdown voltage	$V_{(BR)EBO}$	-6	-	-	V	$I_E = -50\mu\text{A}, I_C = 0$
Collector Cut-Off Current	I_{CBO}	-	-	-500	nA	$V_{CB} = -20\text{V}, I_E = 0$
Emitter Cut-Off Current	I_{EBO}	-	-	-500	nA	$V_{EB} = -5\text{V}, I_C = 0$
Collector-Emitter Saturation Voltage ¹	$V_{CE(sat)}$	-	-	-1	V	$I_C = -4\text{A}, I_B = -0.1\text{A}$
DC current gain ¹	h_{FE}	82	-	390		$V_{CE} = -2\text{V}, I_C = -0.5\text{A}$
Transition Frequency	f_T	-	120	-	MHz	$V_{CE} = -6\text{V}, I_E = -50\text{mA}, f = 30\text{MHz}$
Collector Output Capacitance	C_{ob}	-	60	-	pF	$V_{CB} = -20\text{V}, I_E = 0, f = 1\text{MHz}$

Notes:

1. Pulse Test: Pulse width $\leq 380\mu\text{s}$, duty cycle $\leq 2\%$

CHARACTERISTIC CURVES

