

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

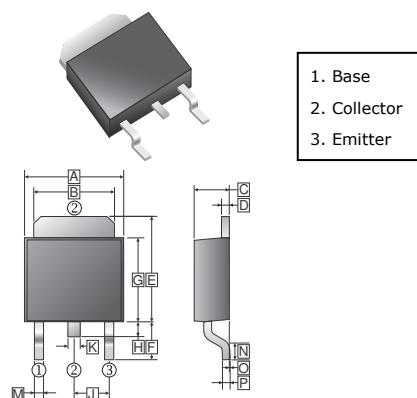
FEATURES

- High Speed Switching Time
- Low Collector Saturation Voltage

CLASSIFICATION OF h_{FE}

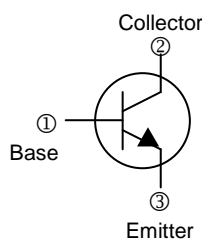
Rank	CZD3303-O	CZD3303-Y
Range	70~140	120~240

TO-252 (D-Pack)



PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13 inch



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	0.58	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	Ratings	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	7	V
Collector Current	I_C	5	A
Collector Power Dissipation	P_C	1	W
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	125	$^\circ\text{C} / \text{W}$
Junction and Storage Temperature	T_J, T_{STG}	150, -55 ~ 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	100	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	80	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	7	-	-	V	$I_E=100\mu\text{A}, I_C=0$
Collector cut-off current	I_{CBO}	-	-	1	μA	$V_{CB}=100\text{V}, I_E=0$
Emitter cut-off current	I_{EBO}	-	-	1	μA	$V_{EB}=7\text{V}, I_C=0$
DC current gain ¹	h_{FE}	70	-	240		$V_{CE}=1\text{V}, I_C=1\text{A}$
		40	-	-		$V_{CE}=1\text{V}, I_C=3\text{A}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	0.4	V	$I_C=3\text{A}, I_B=0.15\text{A}$
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	1.2	V	$V_{CE}=3\text{V}, I_C=0.15\text{A}$
Collector output capacitance	C_{ob}	-	80	-	pF	$V_{CE}=10\text{V}, I_E=0, f=1\text{MHz}$
Transition frequency	f_T	-	20	-	MHz	$V_{CE}=4\text{V}, I_C=1\text{A}$

CHARACTERISTIC CURVES

