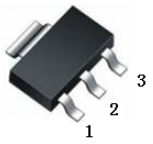
PZTA42 (NPN)

FEATURES

High breakdown voltage

Low collector-emitter saturation voltage

Complementary type: PZTA92(PNP)



1. BASE
2. COLLECTO
3. EMITTER

SOT-223

MAXIMUM RATINGS (TA=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current -Continuous	I_C	500	mA
Collector Power Dissipation	I_C	1	W
Junction Temperature	T_J	150	℃
Storage Temperature	Tstg	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C=100μA,I_E=0	300			V
Collector-emitter breakdown voltage	V_{CEO}	I_C=1mA,I_B=0	300			V
Emitter-base breakdown voltage	V_{EBO}	I_E=100μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=200V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=6V,I_C=0			0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=10V,I_C=1mA	25			
	$h_{FE(2)}$	V_{CE}=10V,I_C=10mA	40			
	$h_{FE(3)}$	V_{CE}=10V,I_C=30mA	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=20mA,I_B=2mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=20mA,I_B=2mA			0.9	V
Transition frequency	f_T	V_{CE}=20V,I_C=10mA,f=100MHz	50			MHz
Collector output capacitance	C_{ob}	V_{CB}=20V,I_E=0,f=1MHz			3	pF

PZTA42 Typical Characteristics