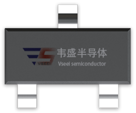
2SD1757K TRANSISTOR (NPN)



1.BASE
2.COLLECTOR
3.EMITTER

SOT-23-3

FEATURES

- Optimal for muting.

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	6.5	V
I_C	Collector Current -Continuous	500	mA
P_C	Collector Power Dissipation	200	mW
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=50μA,I_E=0	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	15			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=50μA,I_C=0	6.5			V
Collector cut-off current	I_{CBO}	V_{CB}=20V,I_E=0			0.5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.5	μA
DC current gain	h_{FE}	V_{CE}=3V,I_C=100mA	120		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= 500mA, I_B=50mA			0.4	V
Transition frequency	f_T	V_{CE}=5V, I_C= 50mA ,f=100MHz		150		MHz
Collector Output Capacitance	C_{ob}	VCB=10V,IE=0,f=1MHz		15		pF

CLASSIFICATION OF h_{FE}

Rank	Q	R	S
Range	120-270	180-390	270-560
MARKING	AAQ	AAR	AAS