

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		ICBO	V _{CB} =-30V, I _E =0	-	-	-15	nA
Emitter Cut-off Current		IEBO	V _{EB} =-5V, I _C =0	-	-	-1	μA
Collector-Emitter Breakdown Voltage	TBC559	V(BR)CEO	I _C =-1mA, I _B =0	-30	-	-	V
	TBC560			-45	-	-	
DC Current Gain		h _{FE} (Note)	V _{CE} =-5V, I _C =-2mA	125	-	475	
Small Signal Current Gain		h _{fe}	V _{CE} =-5V, I _C =-2mA f=1kHz	130	-	500	
Base-Emitter Voltage		V _{BE}	V _{CE} =-5V, I _C =-2mA	-600	-650	-750	V
			V _{CE} =-5V, I _C =-10mA	-	-	-820	
Collector-Emitter Saturation Voltage		V _{CE(sat)}	I _C =-10mA, I _B =-0.5mA	-	-	-300	mV
			I _C =-100mA, I _B =-5mA	-	-	-650	
Base-Emitter Saturation Voltage		V _{BE(sat)}	I _C =-10mA, I _B =-0.5mA	-	-700	-	mV
			I _C =-100mA, I _B =-5mA	-	-850	-	
Knee Voltage		V _{CEK}	I _C =-10mA, I _B =Value for Which I _C =-11mA, at V _{CE} =-1V	-	-250	-600	mV
Transition Frequency		f _T	V _{CE} =-5V, I _C =-10mA	-	300	-	MHz
Collector Output Capacitance		C _{ob}	V _{CB} =-10V, f=1MHz	-	4.5	-	pF
Noise Figure	TBC559	NF	V _{CE} =-5V, I _C =-0.2mA	-	1	4	dB
	TBC560		R _g =2kΩ, f=1kHz	-	1	4	
	TBC559		V _{CE} =-5V, I _C =-0.2mA	-	1.2	4	
	TBC560		R _g =2kΩ, f=30Hz~15kHz	-	1.2	2	

Note: h_{FE} Classification 559-A, 560-A : 125~250

559-B, 560-B : 220~475

