

PRIMARYLY INTENDED FOR USE IN DRIVER STAGE OF AUDIO AMPLIFIERS.

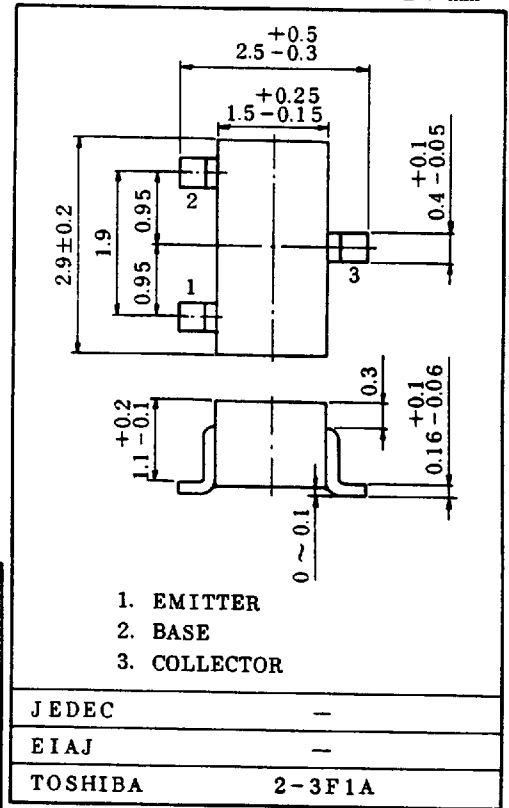
THE TBC859 AND TBC860 IS LOW NOISE TYPE FOR INPUT STAGE OF AUDIO AMPLIFIERS.

- . High V_{CE0} : -45V (TBC860)
 -25V (TBC859)
- . High h_{FE} : 125~475

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Breakdown Voltage	TBC859	$V_{(BR)CBO}$	-30	V
	TBC860		-50	
Collector-Emitter Breakdown Voltage	TBC859	$V_{(BR)CEO}$	-25	V
	TBC860		-45	
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	-5	V
Collector Current	DC	I_C	-100	mA
	Peak	I_{CP}	-200	
Base Current (Peak)		I_{BP}	-200	mA
Collector Power Dissipation		P_C	150	mW
Junction Temperature		T_j	125	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-55~125	$^\circ\text{C}$

Unit in mm



Weight : 0.012g

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TBC859-1

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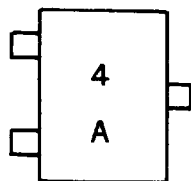
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ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	ICBO	V _{CE} =-30V, I _E =0	-	-	-15	nA
Emitter Cut-off Current	IEBO	V _{EB} =-5V, I _C =0	-	-	-1	μA
Collector-Emitter Breakdown Voltage	TBC859	V(BR)CEO I _C =-1mA, I _B =0	-30	-	-	V
	TBC860		-45	-	-	
DC Current Gain	h _{FE} (Note)	V _{CE} =-5V, I _C =-2mA	125	-	800	
Small Signal Current Gain	h _{fe}	V _{CE} =-5V, I _C =-2mA, f=1kHz	125	-	900	
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	NF	V _{CE} =-5V, I _C =-0.2mA R _g =2kΩ, f=1kHz	-	1	-	dB
		V _{CE} =-5V, I _C =-0.2mA R _g =2kΩ, f=30Hz~15kHz	-	1.2	-	

Note : h_{FE} Classification A : 125~250
 B : 220~475
 C : 420~800

MARKING ex. TBC859-A



	A	B	C
TBC859	4A	4B	4C
TBC860	4E	4F	4G

TBC859-2 *
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