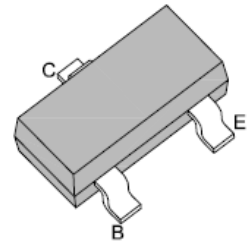


SMD Darlington Transistor (NPN)

Features

- This device is designed for applications requiring extremely High current gain at collector currents to 1.0A
- RoHS compliance



SOT-23



Mechanical Data

Case:	SOT-23, Plastic Package
Terminals:	Solderable per MIL-STD-202G, Method 208
Weight:	0.008 gram

Maximum Ratings *(T_{Ambient}=25°C unless noted otherwise)*

Symbol	Description	MMBTA13	MMBTA14	Unit
	Marking Code	1M	1N	
V_{CBO}	Collector-Base Voltage	30		V
V_{CES}	Collector-Emitter Voltage	30		V
V_{EBO}	Emitter-Base Voltage	10		V
I_C	Collector Current	300		mA
P_{tot}	Power Dissipation up to T _A =25°C	250		mW
T_J	Junction Temperature	150		°C
T_{STG}	Storage Temperature Range	-55 to +150		°C

SMD Darlington Transistor (NPN)

MMBTA13/MMBTA14

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

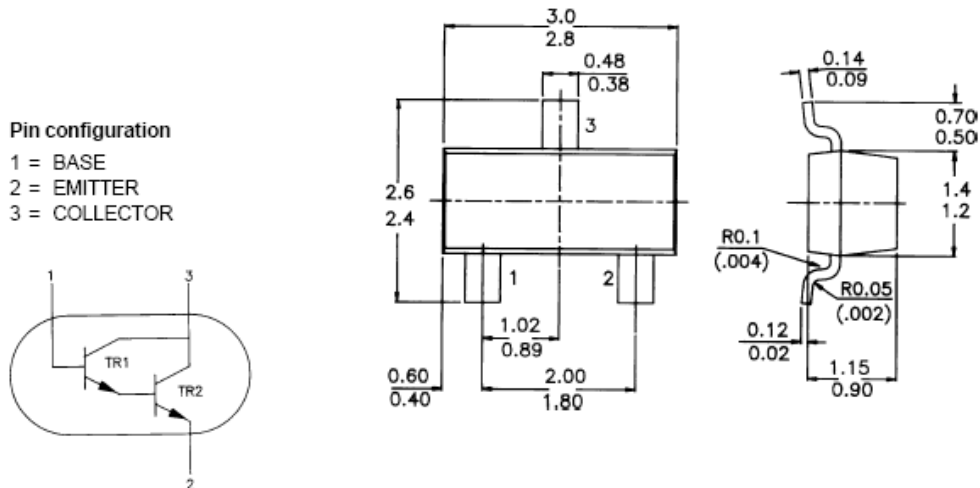
Symbol	Description	Min.	Max.	Unit	Conditions
hFE	D.C. Current Gain	MMBTA13	5000	-	$V_{CE}=5V, I_C=10mA$
		MMBTA14	10000	-	
		MMBTA13	10000	-	$V_{CE}=5V, I_C=100mA$
		MMBTA14	20000	-	
V(BR)CES	Collector-Emitter Breakdown Voltage	30	-	V	$I_C=100\mu A, I_B=0$
VCE(sat)	Collector-Emitter Saturation Voltage	-	1.5	V	$I_C=100mA, I_B=0.1mA$
VBE(on)	Base-Emitter on Voltage	-	2.0	V	$V_{CE}=5V, I_C=100mA$
IEBO	Emitter-Base Cut-off Current	-	0.1	μA	$V_{BE}=10V, I_C=0$
ICBO	Collector-Base Cut-off Current	-	0.1	μA	$V_{CB}=30V, I_E=0$
fT	Current Gain-Bandwidth Product	125	-	MHz	$V_{CE}=5V, I_C=10mA, f=100MHz$

SMD Darlington Transistor (NPN)

MMBTA13/MMBTA14

Dimensions in mm

SOT-23



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