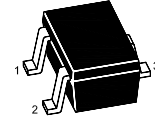


MMBTA63W, MMBTA64W

PNP Darlington Transistors

for preamplifier input applications



1.Base 2.Emitter 3.Collector
SOT-323 Plastic Package

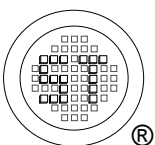
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	30	V
Collector Emitter Voltage	$-V_{CEO}$	30	V
Emitter Base Voltage	$-V_{EBO}$	10	V
Collector Current ¹⁾	$-I_C$	500	mA
Total Power Dissipation ¹⁾	P_{tot}	200	mW
Thermal Resistance, Junction to Ambient ¹⁾	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{stg}	- 55 to + 150	$^\circ\text{C}$

¹⁾ Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. suggested pad layout document AP02001.

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$	h_{FE}	5000	-	-
at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$	h_{FE}	10000	-	-
at $-V_{CE} = 5\text{ V}$, $-I_C = 100\text{ mA}$	h_{FE}	10000	-	-
at $-V_{CE} = 5\text{ V}$, $-I_C = 100\text{ mA}$	h_{FE}	20000	-	-
Collector Base Cutoff Current at $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	-	100	nA
Emitter Base Cutoff Current at $-V_{EB} = 10\text{ V}$	$-I_{EBO}$	-	100	nA
Collector Emitter Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	$-V_{(BR)CEO}$	30	-	V
Collector Emitter Saturation Voltage at $-I_C = 100\text{ mA}$, $-I_B = 100\text{ }\mu\text{A}$	$-V_{CE(sat)}$	-	1.5	V
Base Emitter Saturation Voltage at $-I_C = 100\text{ mA}$, $-V_{CE} = 5\text{ V}$	$-V_{BE(sat)}$	-	2	V
Transition Frequency at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$, $f = 100\text{ MHz}$	f_T	125	-	MHz



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