

Dimensions in mm

Technical drawing of a Darlington circuit for audio output, showing top and side views with dimensions.

Top View Dimensions:

- Overall width: 15.2 mm
- Distance from left edge to center: 7.6 mm
- Distance from center to right edge: 7.6 mm
- Distance from left edge to mounting hole center: 14 mm
- Mounting hole diameter: 4.25 mm
- Distance from mounting hole center to right edge: 4.15 mm
- Distance from center to output pin 1: 13 mm
- Distance from center to output pin 2: 11.5 mm
- Distance from center to output pin 3: 9.5 mm
- Distance between output pins 1 and 2: 5.5 mm
- Distance between output pins 2 and 3: 1.15 mm

Side View Dimensions:

- Overall height: 21.0 mm
- Distance from top edge to mounting hole center: 4.6 mm
- Distance from mounting hole center to output pins: 2 mm
- Distance from output pins to bottom edge: 16 mm
- Distance from left edge to output pins: 0.4 mm
- Distance from right edge to output pins: 0.4 mm

Labels:

- Darlington circuit for audio output**
- 1 6.**

Complementary epitaxial base transistors in monolithic stages and general amplifier and switching applications.

The T64 is PNP and the T65 is NPN

SOT 93

Pin 1 ? Base
Pin 2 ? Collector
Pin 3 ? Emitter

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

ABSOLUTE MAXIMUM RATINGS (T _{case} = 25°C unless otherwise stated)		
V _{CBO}	Collector - Base Voltage (Open Emitter)	T64 120V
V _{CEO}	Collector - Emitter Voltage (Open Base)	T65 120V
V _{EBO}	Emitter - Base Voltage (Open Collector)	5V
I _C	Collector Current (d.c)	12A
I _{CM}	Peak Collector Current	20A
I _B	Base Current (d.c)	0.5A
P _{tot}	Total Power Dissipation up to T _{mb} = 25°C	125W
T _{stg}	Storage Temperature Range	-65 to 150°C
T _j	Maximum Junction Temperature	150°C

ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_{BE}^* Base ? Emitter Voltage	$I_C = 5\text{A}$ $V_{CE} = 4\text{V}$			2.5	V
$V_{CE(sat)}^*$ Collector ? Emitter Saturation Voltage	$I_C = 5\text{A}$ $I_B = 20\text{mA}$			2	V
I_{CBO} Collector ? Base Cut-off Current	$I_E = 0$ $V_{CB} = V_{CBO(max)}$			400	mA
	$I_E = 0$ $V_{CB} = -V_{CBO(max)}$ $T_j = 150^\circ\text{C}$			2	mA
	$I_B = 0$ $V_{CB} = -V_{CBO(max)}$			1	mA
I_{EBO} Emitter Cut-off Current	$I_C = 0$ $V_{EB} = 5\text{V}$			5	mA
h_{FE}^* DC Current Gain	$I_C = 1\text{A}$ $V_{CE} = 4\text{V}$		1500		?
	$I_C = 5\text{A}$ $V_{CE} = 4\text{V}$	1000			
	$I_C = 10\text{A}$ $V_{CE} = 4\text{V}$		1750		
C_C Collector Capacitance	$I_E = I_e = 0$ $V_{CB} = 10\text{V}$ $f = 1\text{ MHz}$		150		pF
f_{hfe} Cut-off Frequency	$I_C = 5\text{A}$ $V_{CE} = 4\text{V}$		70		kHz
V_F Diode Forward Voltage	$I_F = 5\text{A}$		1.2		V
	$I_F = 12\text{A}$		2		

* Pulse test $t_p < 300\text{ms}$, $d < 2\%$

SWITCHING CHARACTERISTICS ($T_{case} = 25^\circ\text{C}$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
t_{on} Turn-On Time	$I_{C(on)} = 5\text{A}$ $V_{CC} = 16\text{V}$ $I_{B(on)} = ?$ $I_{B(off)} = 20\text{mA}$		1		ms
t_f Fall Time			3		
t_{off} Turn-Off Time			6		

THERMAL DATA

$R_{THj?mb}$	Thermal Resistance Junction ? Mounting Base	Max. 1 K / W
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