

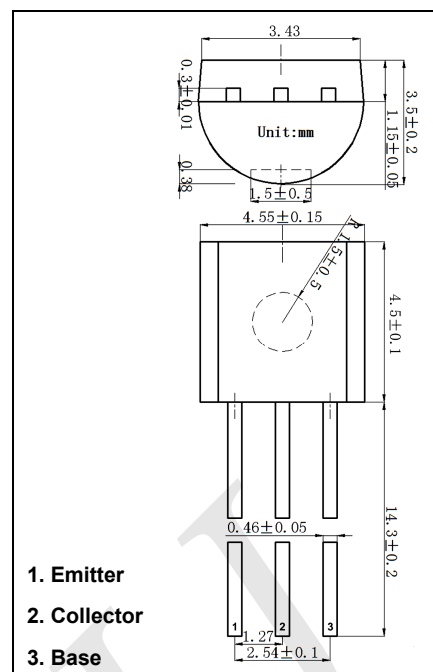
TO-92 Plastic-Encapsulate Transistors

D965R011 NPN Transistors

Features

- Audio Amplifier
- Flash Unit of Camera
- Switching Circuit

Marking: D965R011



Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector Base Voltage	42	V
V_{CEO}	Collector Emitter Voltage	22	V
V_{EBO}	Emitter Base Voltage	6	V
I_c	Collector Current	5	A
P_c	Collector Power Dissipation	750	mW
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55 ~ +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_c = 100\mu\text{A}$, $I_E = 0$	42			V
$V_{(BR)CEO}^*$	Collector-emitter breakdown voltage	$I_c = 1\text{mA}$, $I_B = 0$	22			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = 10\mu\text{A}$, $I_C = 0$	6			V
I_{CBO}	Collector cut-off current	$V_{CB} = 30\text{V}$, $I_E = 0$			100	nA
I_{EBO}	Emitter cut-off current	$V_{EB} = 6\text{V}$, $I_C = 0$			100	nA
$h_{FE(1)}$	DC current gain	$V_{CE} = 5\text{V}$, $I_c = 1\text{mA}$	150			
$h_{FE(2)}$		$V_{CE} = 2\text{V}$, $I_c = 0.15\text{mA}$	150			
$h_{FE(3)}$		$V_{CE} = 2\text{V}$, $I_c = 500\text{mA}$	600		1500	
$h_{FE(4)}$		$V_{CE} = 2\text{V}$, $I_c = 2\text{A}$	150			
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_c = 3000\text{mA}$, $I_B = 100\text{mA}$			0.35	V
f_T	Transition frequency	$V_{CE}=6\text{V}$, $I_c=50\text{mA}$, $f=30\text{MHz}$		150		MHz

Typical Characteristics

