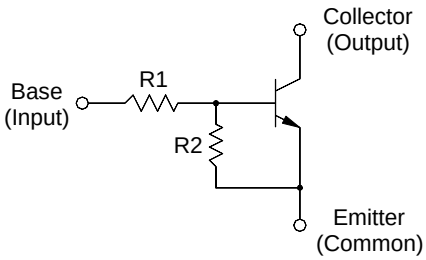
DTC114EN3
NPN Digtal Transistor

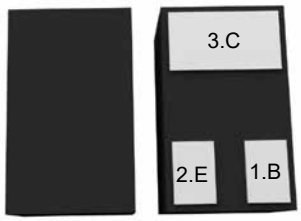
Features

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

Equivalent Circuit



DFN1x0.6-3L



1.Base 2.Emitter 3.Collector

Resistor Values/Marking Code

Type	R1 (KΩ)	R2 (KΩ)	Marking Code
DTC114EN3	10	10	6B

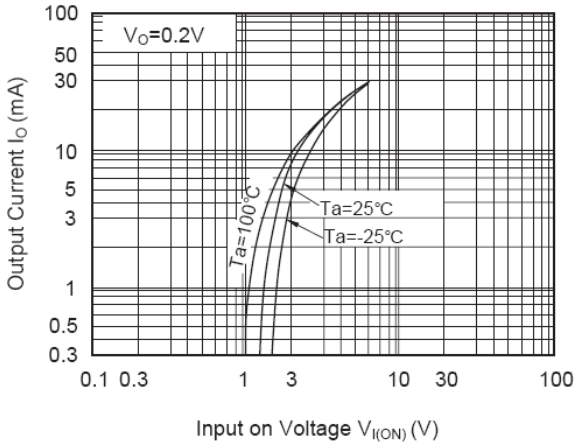
Absolute Maximum Ratings (T_A=25℃)

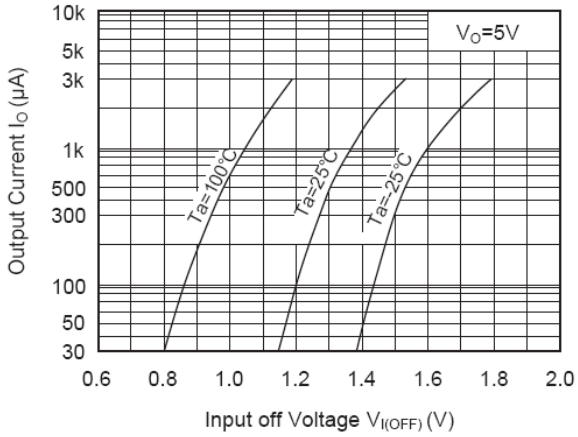
Parameter	Symbol	Value	Unit
Output Voltage	V_O	50	V
Input Voltage	V_I	30,-10	V
Output Current	I_O	100	mA
Maximum Power Dissipation	P_D	200	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

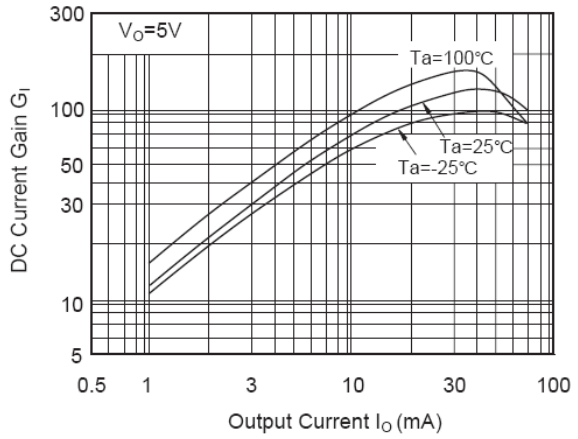
Electrical Characteristics (T_A=25℃)

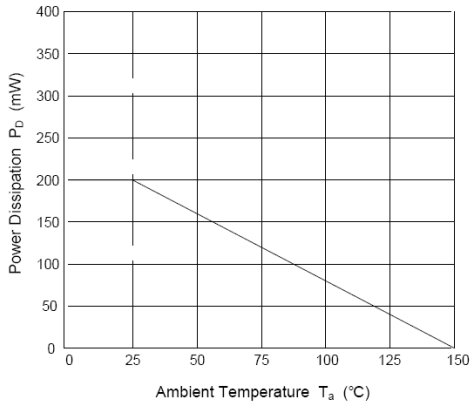
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_O = 5 V, I_O = 10 mA	G_I	50	--	--	--
Output Cutoff Current at V_O = 50 V	$I_{O(OFF)}$	--	--	500	nA
Input Cutoff Current at V_I = 5 V	I_I	--	--	0.88	mA
Output Voltage (ON) at I_O = 10 mA, I_I = 0.5 mA	$V_{O(ON)}$	--	--	0.3	V
Input Voltage (ON) at V_O = 0.2 V, I_O = 5 mA	$V_{I(ON)}$	--	--	2.4	V
Input Voltage (OFF) at V_O = 5 V, I_O = 0.1 mA	$V_{I(OFF)}$	1	--	--	V
Transition Frequency at V_O = -10 V, I_O = -5 mA	f_T	--	200	--	MHz

Typical Characteristic Curves









Package Outline

DFN1x0.6-3L-0009
Dimensions in mm

