

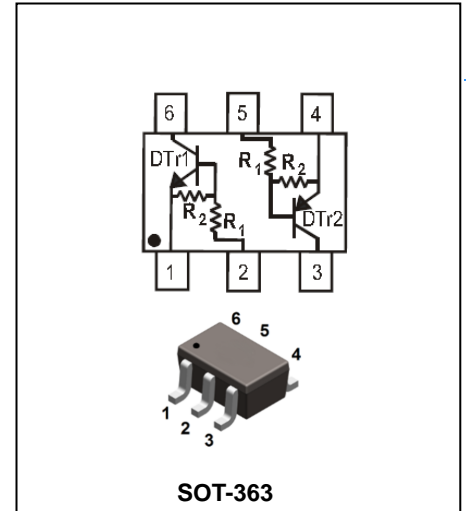


Features

- Both the DTA115E chip and DTC115E chip in SOT-363 package
- Surface mount package suited for automated assembly

Mechanical Data

- Case: SOT-363
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
DCX115EU	SOT-363	3000 pcs / Tape & Reel	C01

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value		Unit
		DTr1	DTr2	
Supply Voltage	V _{CC}	50	-50	V
Input Voltage	V _I	-10 ~ +40	10 ~ -40	V
Output Current	I _O	20	-20	mA
Collector Current	I _{C(Max)}	100	-100	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation ^{*1,2}	P _D	200	mW
Thermal Resistance Junction-to-Air	R _{θJA}	625	°C/W
Operating Junction Temperature Range	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Notes:

1. Mounted on FR-4 PC Board with minimum recommended pad layout
2. 150mW per element must not be exceeded



Electrical Characteristics-DTr1 (@ T_A = 25°C unless otherwise specified)

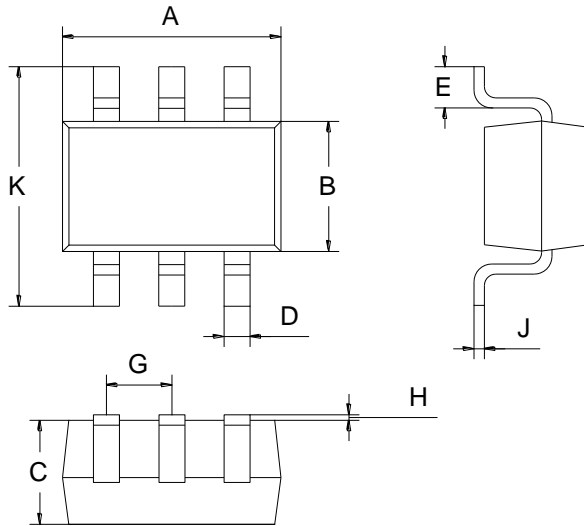
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input Voltage	V _{I(OFF)}	V _{CC} = 5V, I _O = 100μA	0.5	-	-	V
Input Voltage	V _{I(ON)}	V _O = 0.3V, I _O = 1mA	-	-	3	V
Output Voltage	V _{O(on)}	I _O = 10mA, I _I = 0.5mA	-	-	0.3	V
Input Current	I _I	V _I = 5V	-	-	0.15	mA
Output Current	I _{O(off)}	V _{CC} = 50V, V _I = 0V	-	-	0.5	μA
DC Current Gain	G _I	V _O = 5V, I _O = 5mA	82	-	-	-
Input Resistor	R ₁ (R ₂)		70	100	130	kΩ
Resistance ratio	R ₂ /R ₁		0.8	1	1.2	-
Gain-Bandwidth Product	f _T	V _{CE} = 10V, I _E = -5mA f = 100MHz	-	250	-	MHz

Electrical Characteristics-DTr2 (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input Voltage	V _{I(OFF)}	V _{CC} = -5V, I _O = -100μA	-0.5	-	-	V
Input Voltage	V _{I(ON)}	V _O = -0.3V, I _O = -1mA	-	-	-3	V
Output Voltage	V _{O(on)}	I _O = -10mA, I _I = -0.5mA	-	-	-0.3	V
Input Current	I _I	V _I = -5V	-	-	-0.15	mA
Output Current	I _{O(off)}	V _{CC} = -50V, V _I = 0V	-	-	-0.5	μA
DC Current Gain	G _I	V _O = -5V, I _O = -5mA	82	-	-	-
Input Resistor	R ₁ (R ₂)		70	100	130	kΩ
Resistance ratio	R ₂ /R ₁		0.8	1	1.2	-
Gain-Bandwidth Product	f _T	V _{CE} = -10V, I _E = 5mA f = 100MHz	-	250	-	MHz



Package Outline Dimensions (Unit: mm)



SOT-363		
Dimension	Min.	Max.
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout (Unit: mm)

SOT-363

