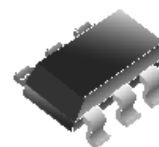


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

### FEATURES

- Two DTC114E Series CR Chips in a Package
- Transistor Elements are Independent, Eliminating The Interference
- Mounting Cost and Area Can be Cut in Half
- Qualified to AEC-Q101 Standards for High Reliability

**SOT-363**



### MARKING

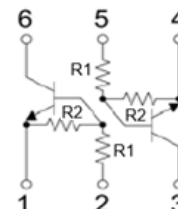
H11

### PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-363	3K	7 inch

### ORDER INFORMATION

Part Number	Type
UMH11NCR-C	Lead (Pb)-free and Halogen-free



### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

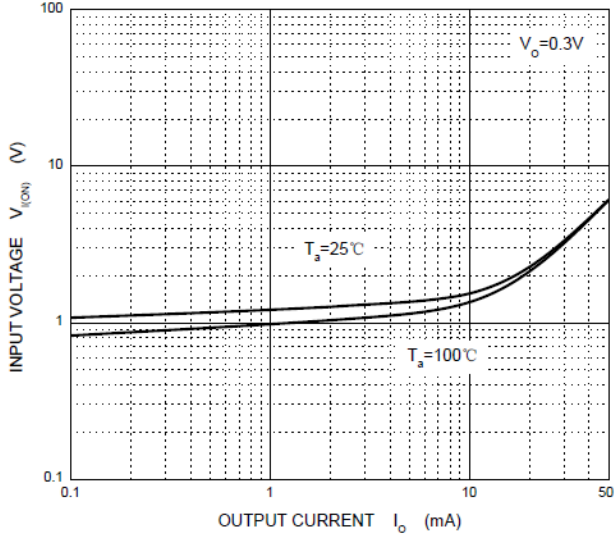
Parameter	Symbol	Value	Unit
Supply Voltage	V <sub>CC</sub>	50	V
Input Voltage	V <sub>IN</sub>	-10~40	
Output Current	I <sub>O</sub>	50	mA
Peak Collector Current	I <sub>C</sub>	100	
Power Dissipation	P <sub>D</sub>	150	mW
Junction & Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55~150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

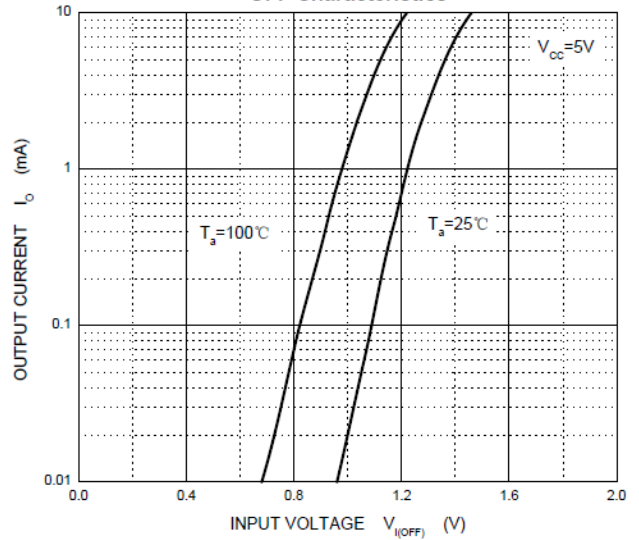
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Input Voltage	V <sub>I(off)</sub>	0.5	-	-	V	V <sub>CC</sub> =5V, I <sub>O</sub> =100μA
	V <sub>I(on)</sub>	-	-	3		V <sub>O</sub> =0.3V, I <sub>O</sub> =10mA
Output Voltage	V <sub>O(on)</sub>	-	0.1	0.3		I <sub>O</sub> /I <sub>I</sub> =10mA/0.5mA
Input Current	I <sub>I</sub>	-	-	0.88	mA	V <sub>I</sub> =5V
Output Current	I <sub>O(off)</sub>	-	-	0.5	μA	V <sub>CC</sub> =50V, V <sub>I</sub> =0
DC Current Gain	G <sub>I</sub>	30	-	-		V <sub>O</sub> =5V, I <sub>O</sub> =5mA
Input Resistance	R <sub>1</sub>	7	10	13	kΩ	
Resistance Ratio	R <sub>2</sub> /R <sub>1</sub>	0.8	1	1.2		
Transition Frequency	f <sub>T</sub>	-	250	-	MHz	V <sub>O</sub> =10V, I <sub>O</sub> =5mA, f=100MHz

**CHARACTERISTICS CURVE**

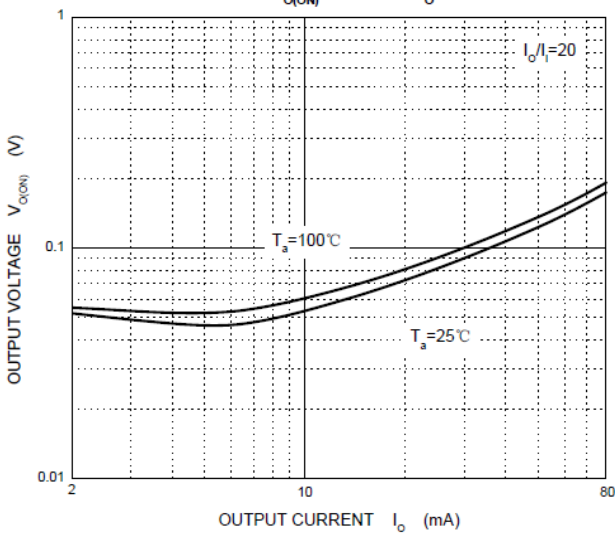
**ON Characteristics**



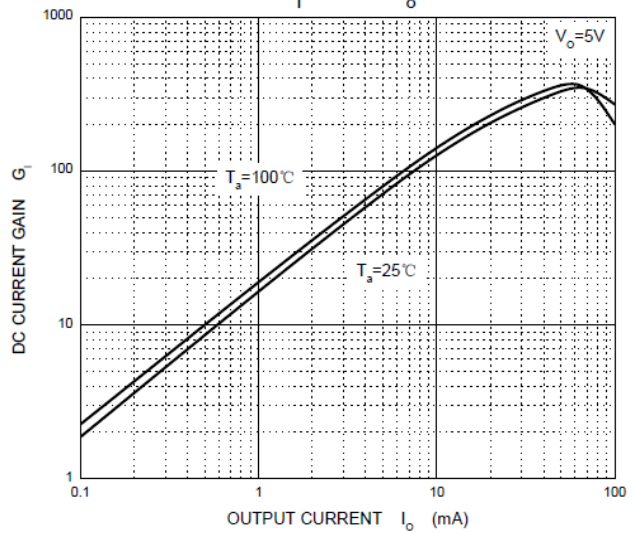
**OFF Characteristics**



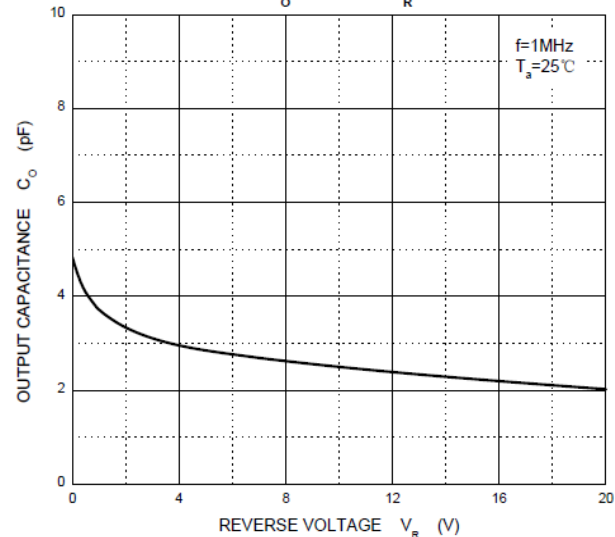
$V_{O(ON)}$  —  $I_O$



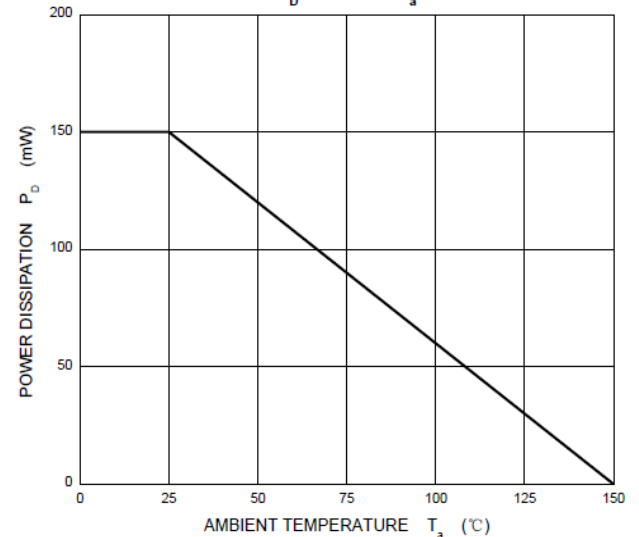
$G_I$  —  $I_O$



$C_O$  —  $V_R$

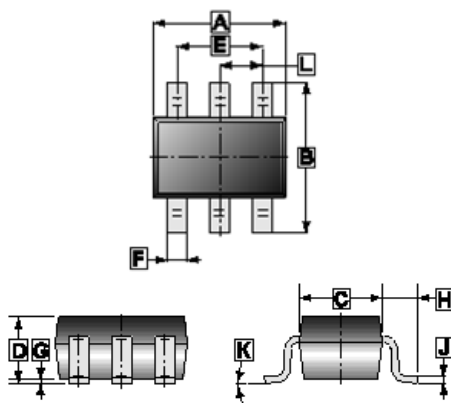


$P_D$  —  $T_a$



**PACKAGE OUTLINE DIMENSIONS**

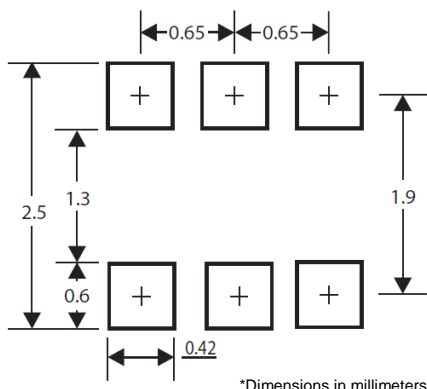
**SOT-363**



REF.	Millimeter	
	Min.	Max.
A	1.80	2.20
B	1.80	2.45
C	1.15	1.35
D	0.70	1.10
E	1.30 REF.	
F	0.10	0.35
G	0.10 REF.	
H	0.525 REF.	
J	0.05	0.25
K	8°	
L	0.65 TYP.	

**MOUNTING PAD LAYOUT**

**SOT-363**



\*Dimensions in millimeters