

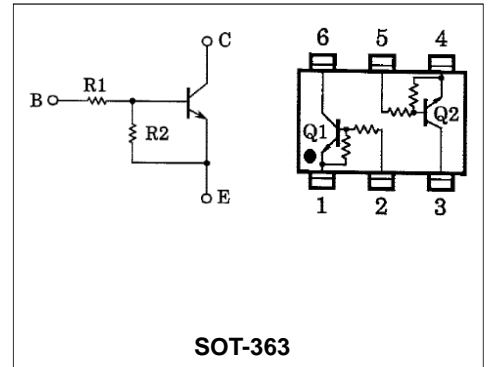


### Features

- Epitaxial planar die construction
- Built-in biasing resistors,  $R_1 = R_2$

### 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
UNM1N	SOT-363	3000 pcs / Tape & Reel	XC

### Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	$V_{CBO}$	50	V
Collector-Emitter Breakdown Voltage	$V_{CEO}$	50	V
Emitter-Base Breakdown Voltage	$V_{EBO}$	10	V
Collector Current (Continuous)	$I_C$	100	mA

### Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	$P_D$	200	mW
Operating Junction Temperature Range	$T_J$	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

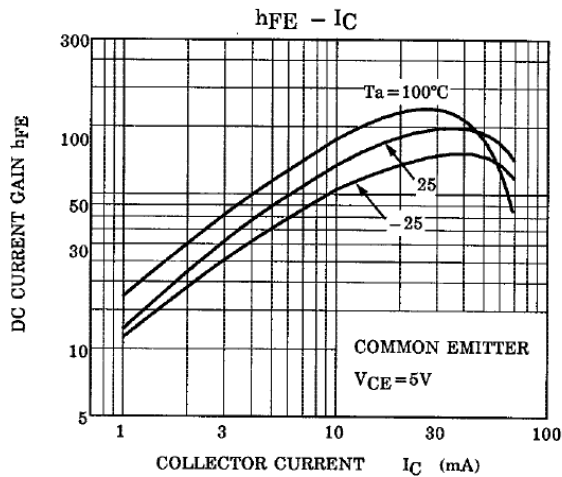
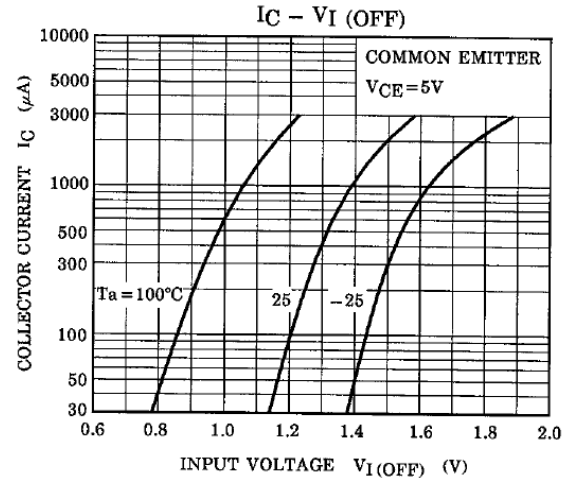
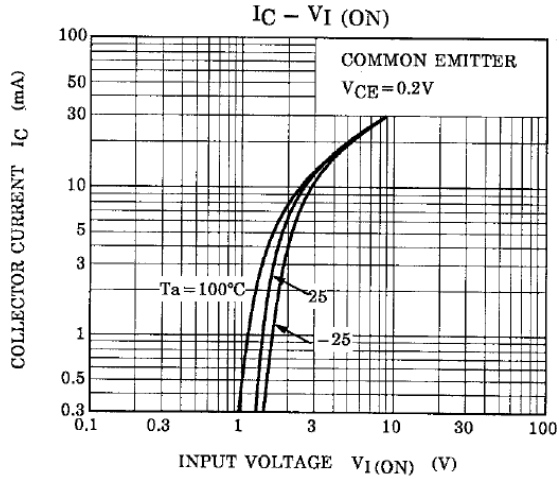


### Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 50V, I_E = 0$	-	-	0.1	$\mu\text{A}$
Collector Cut-off Current	$I_{CEO}$	$V_{CE} = 50V, I_B = 0$	-	-	0.5	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 10V, I_C = 0$	-	-	0.33	mA
DC Current Gain	$h_{FE}$	$V_{CE} = 5V, I_C = 10\text{mA}$	70	-	-	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 5\text{mA}, I_B = 0.25\text{mA}$	-	-	0.3	V
Input voltage	$V_{I(ON)}$	$V_{CE} = 0.2V, I_C = 5\text{mA}$	1.3	-	3	V
Input voltage	$V_{I(OFF)}$	$V_{CE} = 5V, I_C = 0.1\text{mA}$	1	-	1.5	V
Transition Frequency	$f_T$	$V_{CE} = 10V, I_C = 5\text{mA}$	-	250	-	MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = I_e = 0$ $f = 1\text{MHz}$	-	-	6	pF
Input Resistor	$R_1$		15.4	22	28.6	k $\Omega$
Resistance ratio	$R_1/R_2$		0.9	1.0	1.1	-

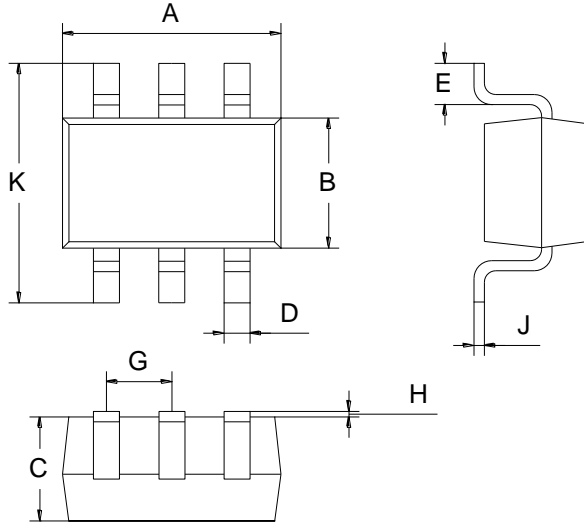


## Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)





### 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

