



查询CMBT918供应商

Continental Device India Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

捷多邦，专业PCB打样工厂

24小时加急出货



ISO 14001



SOT-23 Formed SMD Package

CMBT918

VHF/UHF TRANSISTOR

N-P-N transistor

Marking

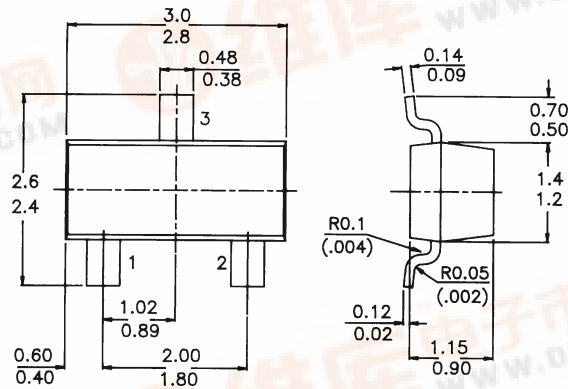
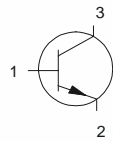
CMBT918 = 3B

PACKAGE OUTLINE DETAILS

ALL DIMENSIONS IN mm

Pin configuration

- 1 = BASE
- 2 = EMITTER
- 3 = COLLECTOR



ABSOLUTE MAXIMUM RATINGS

Collector-base voltage (open emitter)
Collector-emitter voltage (open base)
Emitter-base voltage (open collector)
Collector current (d.c.)
Total power dissipation at $T_{amb} = 25^{\circ}C$
D.C. current gain
 $-I_C = 3 \text{ mA}; -V_{CE} = 1 \text{ V}$

$-V_{CBO}$	max.	30	V
$-V_{CEO}$	max.	15	V
$-V_{EBO}$	max.	3	V
$-I_C$	max.	350	mA
P_{tot}	max	225	mW
h_{FE}	min.	20	

RATINGS (at $T_A = 25^{\circ}C$ unless otherwise specified)

Limiting values

Collector-base voltage (open emitter)
Collector-emitter voltage (open base)
Emitter-base voltage (open collector)
Collector current (d.c.)

$-V_{CBO}$	max.	30	V
$-V_{CEO}$	max.	15	V
$-V_{EBO}$	max.	3	V
$-I_C$	max.	350	mA



CMBT918

Total power dissipation at $T_{amb} = 25^{\circ}\text{C}$
Storage temperature
Junction temperature

P_{tot}	max	225	mW
T_{stg}	-55 to +150		$^{\circ}\text{C}$
T_j	max.	150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

$$T_j = P (R_{th\ j-t} + R_{th\ s-a}) + T_{amb}$$

Thermal resistance

from junction to ambient

$R_{th\ j-a}$	556	$^{\circ}\text{C/mW}$
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CHARACTERISTICS (at $T_A = 25^{\circ}\text{C}$ unless otherwise specified)

Collector-emitter breakdown voltage

$$-I_C = 3\text{ mA}; -I_B = 0$$

$-V_{(BR)CEO\ min.}$	15	V
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Collector-base breakdown voltage

$$-I_C = 1\ \mu\text{A}; -I_E = 0$$

$-V_{(BR)CBO\ min.}$	30	V
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Emitter-base breakdown voltage

$$-I_E = 10\ \mu\text{A}; -I_C = 0$$

$-V_{(BR)EBO\ min.}$	3	V
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Collector cut-off current

$$-V_{CB} = 15\text{ V}; -I_E = 0$$

$-I_{CBO\ max.}$	50	nA
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Output capacitance at $f = 1\text{ MHz}$

$$-V_{CB} = 10\text{ V}; I_E = 0$$

$C_c\ max.$	1.7	pF
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Input capacitance at $f = 1\text{ MHz}$

$$-V_{EB} = 0.5\text{ V}; I_C = 0$$

$C_e\ max.$	2	pF
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Saturation voltages

$$-I_C = 10\text{ mA}; -I_B = 1\text{ mA}$$

$-V_{CEsat\ max.}$	0.4	V
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$-V_{BEsat\ max.}$	1	V
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D.C. current gain

$$-I_C = 3\text{ mA}; -V_{CE} = 1\text{ V}$$

$h_{FE\ min.}$	20	
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Noise figure at $R_S = 50\ \Omega$

$$-I_C = 1\text{ mA}; -V_{CE} = 6\text{ V}$$

$$f = 60\text{ MHz}$$

$NF\ max.$	6	dB
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Transition frequency

$$V_{CE} = 10\text{ V}; I_C = 4\text{ mA}; f = 100\text{ MHz}$$

$f_T\ min.$	600	MHz
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Customer Notes

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/ CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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