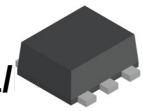
RF Transistor

8 V 47 22 A 2.79(f 1 Tf19.754 7TD47.0 l6757 5T MCH6001/ 59.7543 6f 339. Tm



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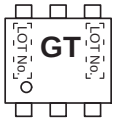
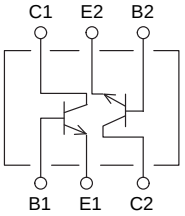
MARKING DIAGRAM



GT = Specific Device Code

ELECTRICAL CONNECTION



1 : Base1
2 : Emitter1
3 : Collector2
4 : Base2
5 : Emitter2
6 : Collector1

	V_{EBO}		2	V
Collector Current	I_C		150	mA
Collector Dissipation	P_C	When mounted on glass epoxy substrate 1 unit	400	mW
Total Dissipation	P_T	When mounted on glass epoxy substrate	600	mW
Junction Temperature	T_J		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

ORDERING INFORMATION

Device	Package	Shipping†
MCH6001−TL−E	MCPH6 / SC−88FL (Pb−Free)	3000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

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ELECTRICAL CHARACTERISTICS at T_A = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			Min	Typ	Max	
Collector Cutoff Current	I_{CBO}	V_{CB} = 5 V, I_E = 0 A	−	−	1.0	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 1 V, I_C = 0 A	−	−	1.0	μA
DC Current Gain	h_{FE}	V_{CE} = 5 V, I_C = 50 mA	60	−	150	
Gain−Bandwidth Product	f_T	V_{CE} = 5 V, I_C = 50 mA	13	16	−	GHz
Forward Transfer Gain	$\|S21e\|^2$	V_{CE} = 5 V, I_C = 50 mA, f = 1 GHz	−	16	−	dB
Noise Figure	NF	V_{CE} = 1 V, I_C = 10 mA, f = 1 GHz	−	1.2	1.8	dB

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

NOTE: Pay attention to handling since it is liable to be affected by static electricity due to the high−frequency process adopted.

TYPICAL CHARACTERISTICS

V_{CE}, COLLECTOR−TO−EMITTER VOLTAGE (V)

Figure 1. I_C V_{CE}

V_{BE}, BASE−TO−EMITTER VOLTAGE (V)

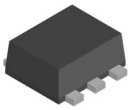
Figure 2. I_C V_{BE}

I_C, COLLECTOR CURRENT (mA)

Figure 3. h_{FE} I_C

V_{CB}, COLLECTOR−TO

Figure 4. Cre V_{CB}



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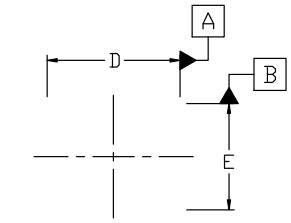
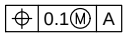
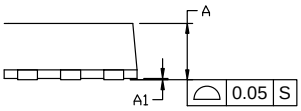
ISSUE A

DATE 28 SEP 2022

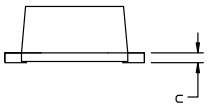




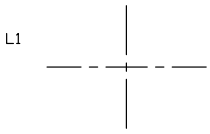
TOP VIEW



SIDE VIEW



FRONT VIEW



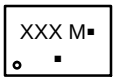
BOTTOM VIEW

NOTES:

1. NO INDUSTRY STANDARD APPLIES TO THIS PACKAGE.
2. ALL DIMENSIONS ARE IN MILLIMETERS.
3. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND THE BAR PROTRUSIONS.

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	0.80	0.85	0.90
A1	0.00	---	0.02
b	0.25	0.30	0.40
c	0.12	0.15	0.25
D	1.94	2.00	2.06
E	1.54	1.60	1.66
He	2.05	2.10	2.15
L	0.19	0.25	0.31
L1	0.00	0.07	0.12

GENERIC
MARKING DIAGRAM*



XXX = Specific Device Code
M = Date Code
▪ = Pb−Free Package

(Note: Microdot may be in either location)

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, “G” or microdot “▪”, may or may not be present. Some products may not follow the Generic Marking.

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