

RF Transistor

8 1647 22 (A)2.79(f 1 Tf19.754 7TD47-0 16757 5)T/MCH6001/



59.7543 6f:339. Tm.

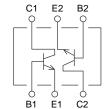
SC 88FL/MCPH6 CASE 419AS

MARKING DIAGRAM



= Specific Device Code

ELECTRICAL CONNECTION



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

	V _{EBO}		2	٧
Collector Current	Ic		150	mA
Collector Dissipation	P _C	Men mounted on glass epoxy substrate 1 unit	400	mW
Total Dissipation	P _T	Men mounted on glass epoxy substrate	600	mW
unction Temperature	TJ		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.

MCH6001

ELECTRICAL CHARACTERISTICS at $T_A = 25^{\circ}C$

			Ratings			
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector Cutoff Current	I _{CBO}	$V_{CB} = 5 \text{ V}, I_{E} = 0 \text{ A}$	_	_	1.0	μΑ
Emitter Cutoff Current	I _{EBO}	V _{EB} = 1 V, I _C = 0 A	_	_	1.0	μΑ
DC Current Gain	h _{FE}	$V_{CE} = 5 \text{ V}, I_{C} = 50 \text{ mA}$	60	_	150	
Gain-Bandwidth Product	f _T	$V_{CE} = 5 \text{ V, } I_{C} = 50 \text{ mA}$	13	16	-	GHz
Forward Transfer Gain	S21e ²	$V_{CE} = 5 \text{ V}, I_{C} = 50 \text{ mA}, f = 1 \text{ GHz}$	_	16	-	dB
Noise Figure	NF	$V_{CE} = 1 \text{ V, } I_{C} = 10 \text{ mA, } f = 1 \text{ GHz}$	_	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.

MCH6001

TYPICAL CHARACTERISTICS

 $\mathsf{V}_\mathsf{CE}, \mathsf{COLLECTOR}\text{-}\mathsf{TO}\text{-}\mathsf{EMITTER}\;\mathsf{VOLTAGE}\;(\mathsf{V})$

Figure 1. I_C V_{CE}

 $V_{\mathsf{BE}}, \, \mathsf{BASE}\text{-}\mathsf{TO}\text{-}\mathsf{EMITTER} \,\, \mathsf{VOLTAGE} \,\, (\mathsf{V})$

Figure 2. I_C V_{BE}

 $I_{C},\,COLLECTOR\,\,CURRENT\,\,(mA)$

Figure 3. h_{FE} I_C

V_{CB}, COLLECTOR-TO

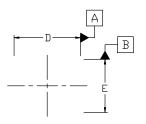
Figure 4. Cre V_{CB}

MCH6001



SC-88FL / MCPH6 CASE 419AS ISSUE A

DATE 28 SEP 2022



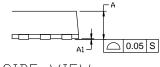
NOTES:

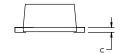
- 1. NO INDUSTRY STANDARD APPLIES TO THIS PACKAGE.
- 2. ALL DIMENSIONS ARE IN MILLIMETERS.
- 3. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND THE BAR PROTRUSIONS.

DIM	MILLIMETERS			
	MIN.	N□M.	MAX.	
Α	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	

⊕ 0.1M A

TOP VIEW





SIDE VIEW

FRONT VIEW



BOTTOM VIEW

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.

