BRCL4079ME-4.2 /

BRCL4079ME-4.2 5V USB

MOSFET

4.2V

1/10 BRCL4079ME-4.2

BRCL4079ME-4.2 SOT23-5

-40 C +85 C

◆ 36V 6.1V

BRCL4079ME-4.2

Rev.A Dec.-2025

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Input Voltage Range	V_{CC}		4.5	5	36	V
Quiescent Supply Current	I_Q	Charge Mode R_{PROG}=2.0k		240	360	εA
		Standby Mode (Charge Terminated)		220	300	εA
		Shutdown Mode (R_{PROG} Not Connected, V_{CC} < V_{BAT}, or V_{CC} < V_{UV})		220	300	εA
		OVP state		120	250	εA
Regulated Output (Float)Voltage	V_{FLOAT}	0 ÒT$_A$Ò85 , R_{PROG} = 2.0k	4.158	4.200	4.242	V
BAT Pin Current	I_{BAT}	R_{PROG} =2.0k, Current Mode	427.5	475	522.5	mA
		Standby Mode, V_{BAT} = 4.2V	0	-2.5	-6	εA
		Shutdown Mode (R_{PROG} Not Connected)		±1	±2	εA
		Sleep Mode, V_{CC} = 0V		-1	-2	εA
Trickle Charge Current	I_{TRIKL}	V_{BAT} < V_{TRIKL}, R_{PROG} = 2.0K	35	47.5	60	mA
Trickle Charge Threshold Voltage	V_{TRIKL}	R_{PROG} = 2.0k, VBAT Rising	2.3	2.5	2.7	V
Trickle Charge Hysteresis Voltage	V_{TRHYS}	R_{PROG} =2.0k	120	160	200	mV
VCC Undervoltage Lockout Threshold	V_{UV}	From V_{CC} Low to High	3.5	3.7	3.9	V
VCC Undervoltage Lockout Hysteresis	V_{UVHYS}	From V_{CC} High to Low	100	200	300	mV
VCC-VBAT Lockout Threshold Voltage	V_{ASD}	V_{CC} from Low to High	100	125	150	mV
		V_{CC} from High to Low	30	65	100	mV
C/10 Termination Current Threshold	I_{TERM}	R_{PROG} = 2.0k	35	47.5	60	mA
PROG Pin Voltage	V_{PROG}	R_{PROG} = 2.0k, Current Mode	0.9	1.0	1.1	V
CHRG Pin Output Low Voltage	V_{CHRG}	I_{CHRG} = 5mA		0.3	0.6	V

Recharge Battery Threshol4 Tc.....467 T-.0019 Tc0.2125 Tc0 Tw[Vo)5<00ade

BRCL4079ME-4.2

Rev.A Dec.-2025

DATA SHEET

/ Function description

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BRCL4079ME-4.2 / PCB
600mA 1% BRCL4079ME-4.2 P
MOSFET
BRCL4079ME-4.2 USB

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VCC UVLO 1% PROG
BAT 2.5V
BRCL4079ME-4.2 1/10
BAT 2.5V BAT
4.2V BRCL4079ME-4.2
1/10

◆

PROG PROG 950

$R_{PROG}=950/I_{CHG}$ $I_{CHG}=950/R_{PROG}$

PROG BAT

$I_{BAT}= (V_{PROG}\times 950)/R_{PROG}$

/ Function description

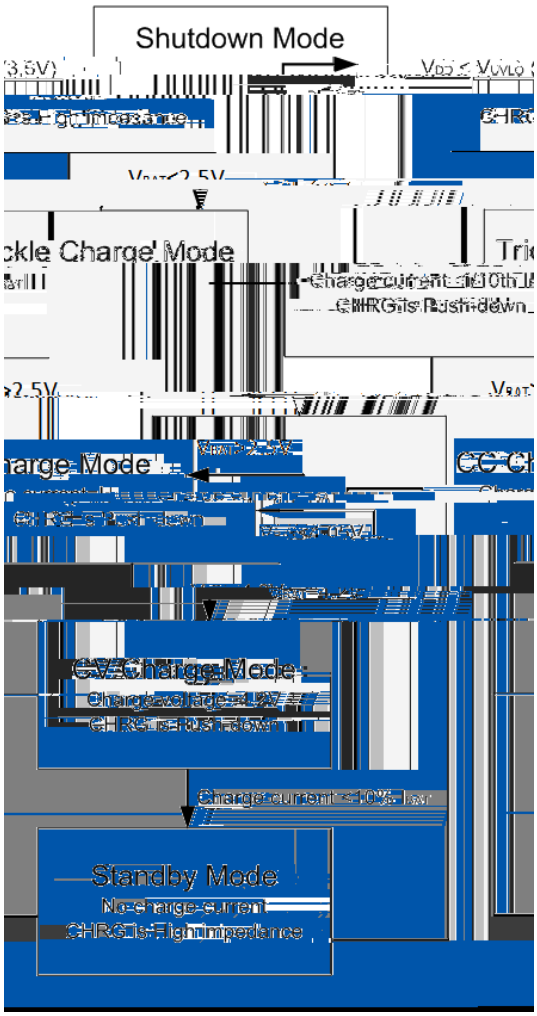
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1/10

PROG PROG 100mV tTERM

BRCL4079ME-4.2 55 A

C/10



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	LED
UVLO	
BAT 10 F	LED T=1-4s

◆

145 C

BRCL4079ME-4.2

BRCL4079ME-4.2

◆ **UVLO**

VCC

UVLO 200mV MOSFET VCC

30mV UVLO UVLO

VCC 100mV

◆

BRCL4079ME-4.2 1.8ms $t_{RECHARGE}$

BAT 4.05V 80% 90%

◆

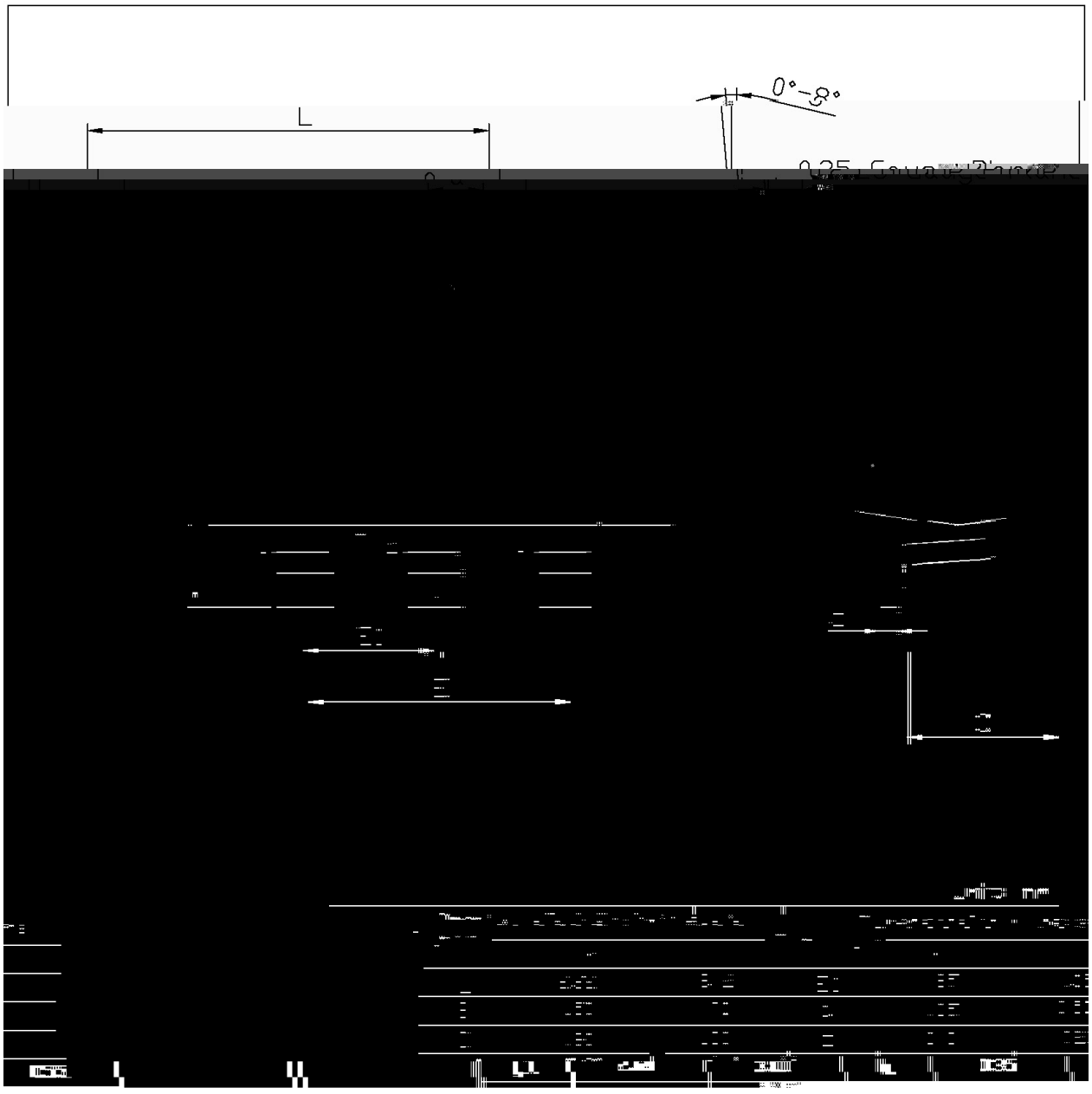
PROG PROG

20k

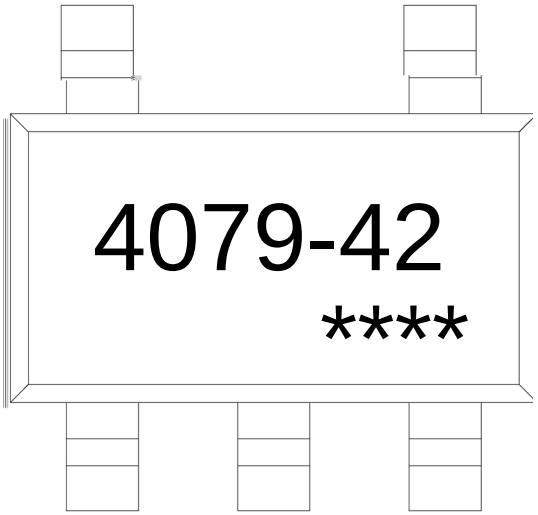
PROG 100kHz

PROG CPROG RPROG

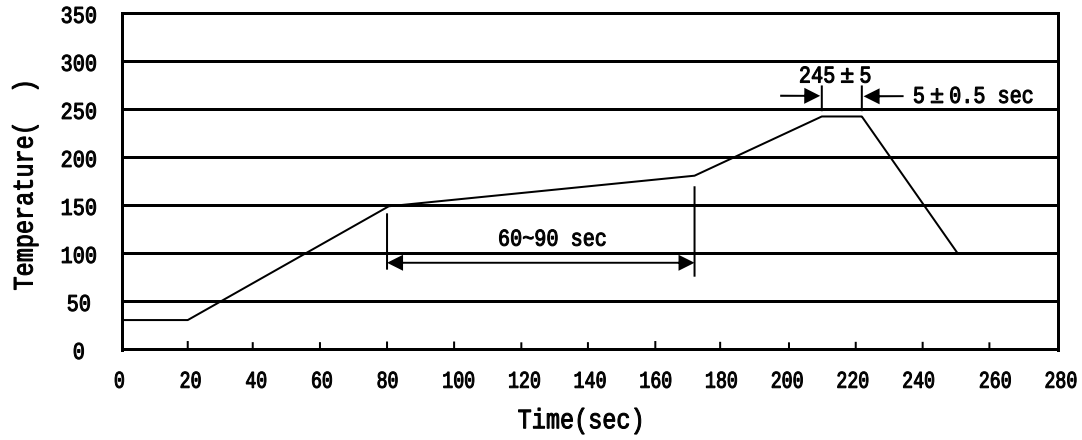
/ Package Dimensions



/ Marking Instructions



( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



			Note:
1	150 180	60 90sec;	1.Preheating:150~180 , Time:60~90sec.
2	245 5	5 0.5sec;	2.Peak Temp.:245 5 , Duration:5 0.5sec.
3	2 10 /sec.		3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260 5	10 1 sec.	Temp.:260±5	Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension		(unit mm³)
SOT23-5/6	3,000	10	30,000	4	120,000	7 ×8	210×205×205	445×435×230

/ Notices

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