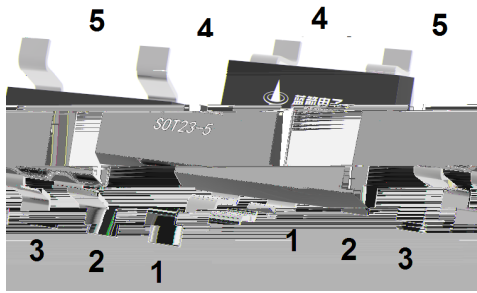


/ Pinning



TOP VIEW



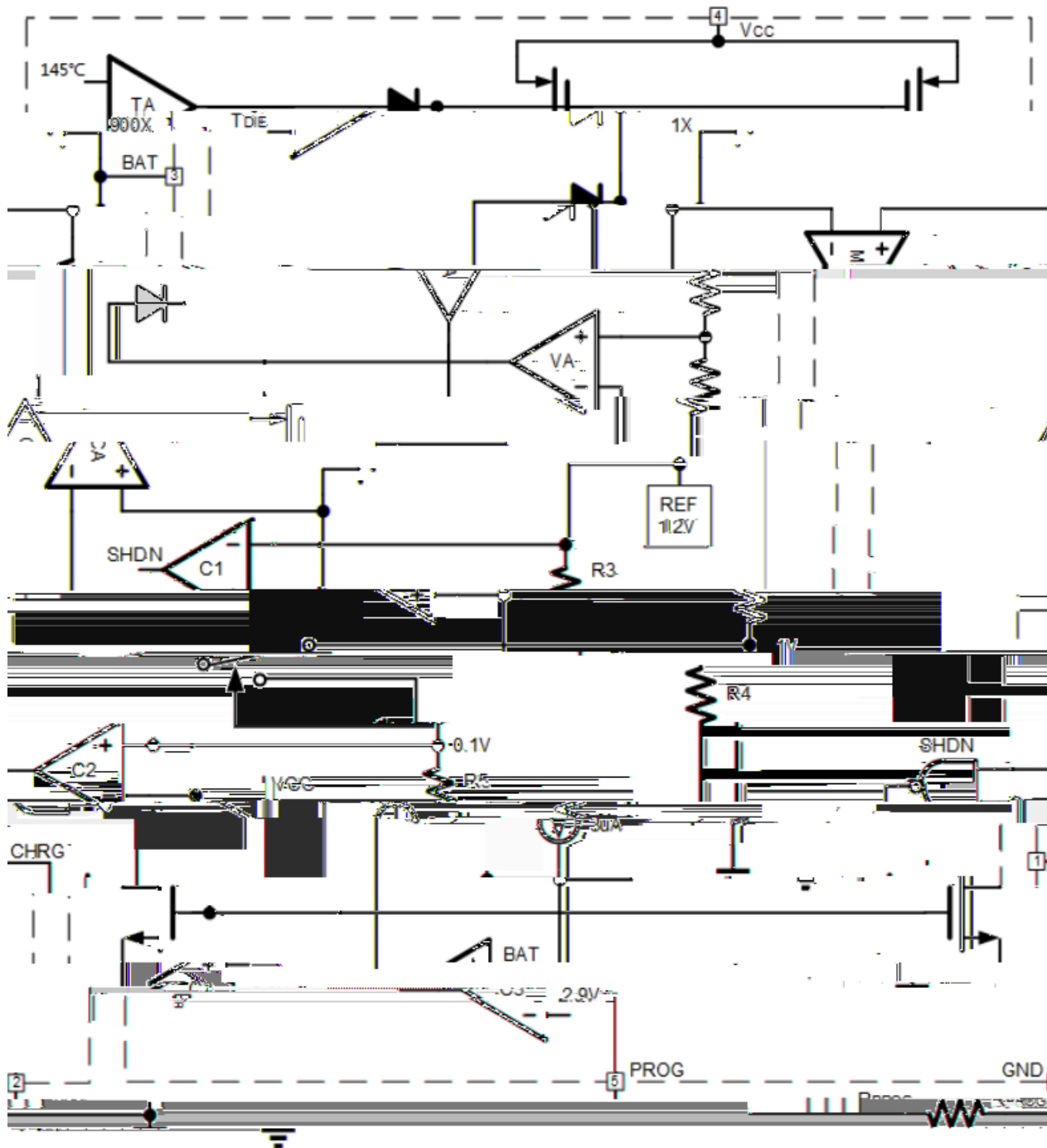
PIN Num.	Symbol	Function
1	CHRG	
2	GND	
3	BAT	
4	VCC	
5	PROG	

/ Absolute Maximum Ratings(Ta=25)

PARAMETER	SYMBOL	RATINGS	UNITS
Input Pin Voltage	V _{VCC}	-0.3~36	V
BAT Pin Voltage	V _{BAT}	-4.2~18	
Other Pin Voltage	V _{PROG}	-0.3~5.5	
CHRG Pin Voltage	V _{CHRG}	-0.3~13	
Storage Temperature	T _{stg}	-65~+150	
Junction Temperature	T _J	150	
Operating Ambient Temperature Range	T _{OP}	-40~+85	
Lead Temperature (Soldering, 10s)	T _{solder}	260	
Power onsumption	P _D	0.3	W
Junction-to-Ambient	R _{θJA}	250	/W
ESD	HBM	2000	V
	CDM	1000	V

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Input Voltage Range	V_{CC}		4.5	5	36	V
Quiescent Supply Current	I_Q	Charge Mode $R_{PROG}=2.05k$		240	360	μA
		Standby Mode (Charge Terminated)		220	300	μA
		Shutdown Mode (R_{PROG} Not Connected, $V_{CC} < V_{BAT}$, or $V_{CC} < V_{UV}$)		220	300	μA
		OVP state		120	250	μA
Regulated Output (Float)Voltage	V_{FLOAT}	$0 \leq T_A \leq 85^\circ C$, $R_{PROG} = 2.05k$	4.158	4.200	4.242	V
BAT Pin Current	I_{BAT}	$R_{PROG} = 2.05k$, Current Mode	400	450	500	mA
		Standby Mode, $V_{BAT} = 4.2V$	0	-2.5	-6	μA
		Shutdown Mode (R_{PROG} Not Connected)		± 1	± 2	μA
		Sleep Mode, $V_{CC} = 0V$		-1	-2	μA
Trickle Charge Current	I_{TRIKL}	$V_{BAT} < V_{TRIKL}$, $R_{PROG} = 2.05K$	30	45	60	mA
Trickle Charge Threshold Voltage	V_{TRIKL}	$R_{PROG} = 2.05k$, V_{BAT} Rising	2.3	2.5	2.7	V
Trickle Charge Hysteresis Voltage	V_{TRHYS}	$R_{PROG} = 2.05k$	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}	$R_{PROG} = 2.05k$	40	45	50	mA
PROG Pin Voltage	V_{PROG}	$R_{PROG} = 2.05k$, 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 Threshold Voltage						

/ Principle block diagram



BRCL4058PME-4.2	/			PCB
600mA		±1%	BRCL4058PME-4.2	P
MOSFET				
BRCL4058PME-4.2	USB			
VCC	UVLO	1%	PROG	
	BAT	2.5V		
BRCL4058PME-4.2	1/10			
BAT	2.5V			BAT

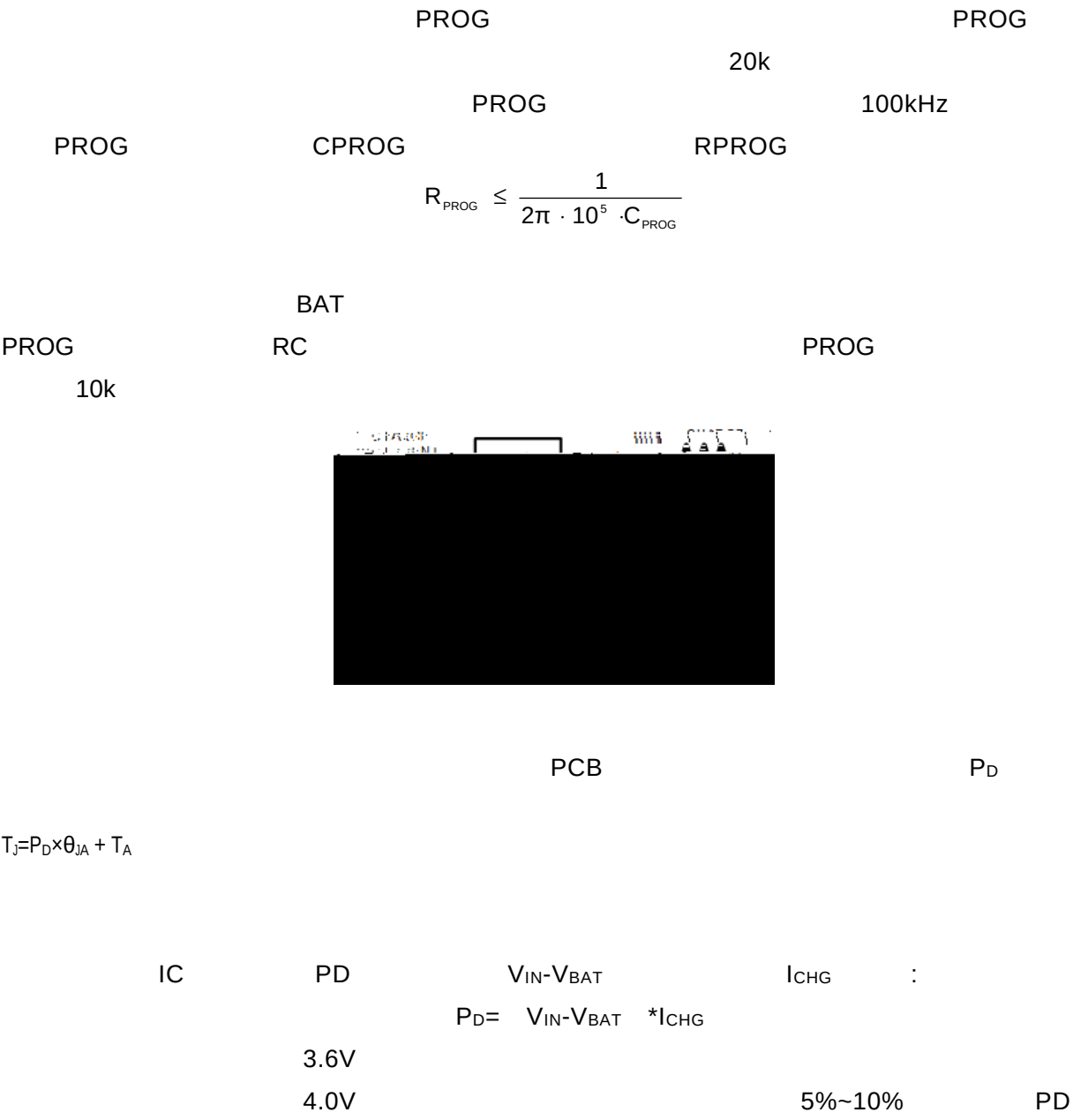
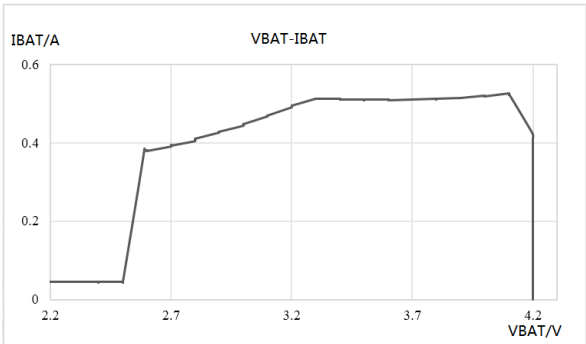
/ Function description

Timing diagram for BRCL4058PME-4.2. The diagram shows the relationship between PROG, BAT, and V_RECHRG signals. Key timing parameters include 100mV, 1.8ms, 1/10, and 4.05V. The diagram is divided into sections labeled PROG, BAT, and V_RECHRG, with specific timing parameters for each section.



BRCL4058PME-4.2		CHRG	BRCL4058PME-4.2		
CHRG	CHRG Đ		CHRG	℃ ¯ ¯ H	GE

/ Function description



/ Package Dimensions



CS-23-2

/ Marking Instructions

