

Features

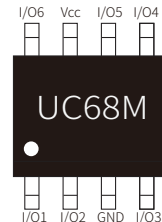
105W Peak Pulse Power per Line (tp=8/20μs)
Protects Six High Speed I/O Lines and Vcc
Low Clamping Voltage

Applications

USB Series or High-Speed Data Line
Microprocessor based equipment
Video Graphs Cards
Digital Video Interface (DVI)
High Definition Multi-Media
Interface (HDMI)
IEEE1394 Firewire Ports
CCD Camera Lines



SOP-8

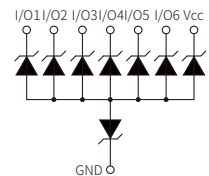


Marking

IEC Compatibility Approvals

IEC61000-4-2 (ESD) ±17kV (air), ±15kV (contact)
IEC61000-4-4 (EFT) 40A (5/50ns)

RoHS Compliance with 2011/65/EU
HF Compliance with IEC61249-2-21:2003



Schematic Symbol

Thermal Considerations

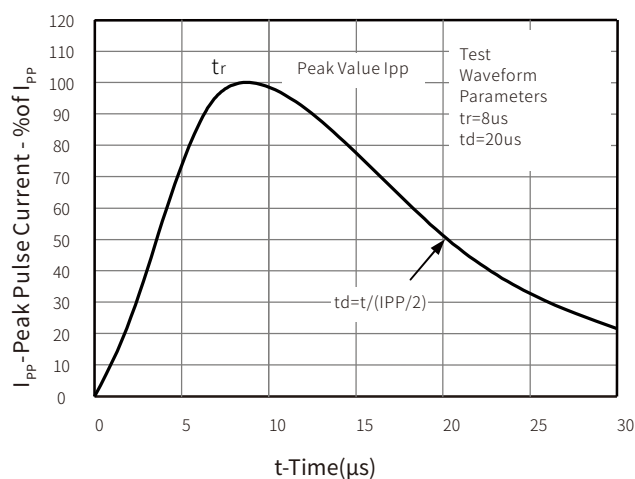
Symbol	Parameter	Value	Unit
P_{PP}	Peak Pulse Power (tp=8/20μs waveform)	105	Watts
T_J	Operating Temperature Range	-40 to +125	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

Electrical Characteristics

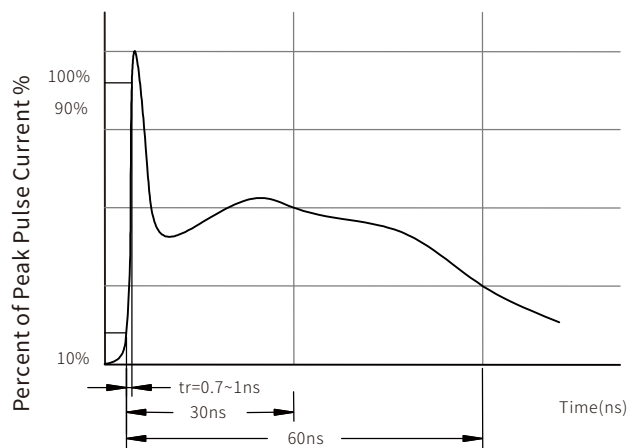
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage				5	V
V_{BR}	Reverse Breakdown Voltage	$I_R=1mA$	6			V
I_R	Reverse Leakage Current	$V_{RWM}=5V$			0.1	μA
V_C	Clamping Voltage	$I_{PP}=1A, tp=8/20μs$			13.5	V
V_C	Clamping Voltage	$I_{PP}=2A, tp=8/20μs$			20	V
V_C	Clamping Voltage	$I_{PP}=3.5A, tp=8/20μs$			30	V
I_{PP}	Peak Pulse Current	$tp=8/20μs$			3.5	A
C_J	Off State Junction Capacitance	$V_R=0V, f=1MHz$		0.35		pF

Characteristic Curves

8/20 μ s Pulse Waveform

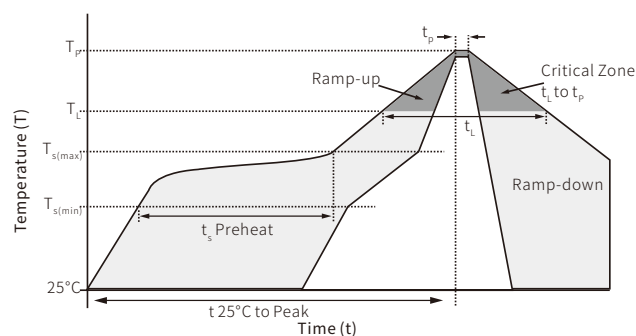


ESD Pulse Waveform (according to IEC 61000-4-2)

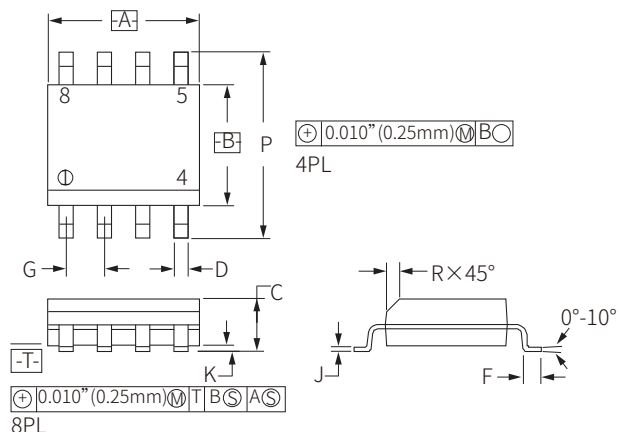


Soldering Parameters

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260°C
Time within 5°C of actual peak Temperature (t_P)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes max.
Do not exceed		260°C

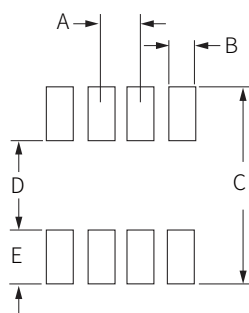


SOP-8 Package Information



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.70	5.30	0.185	0.209
B	3.80	4.20	0.150	0.165
C	1.35	1.75	0.054	0.068
D	0.35	0.49	0.014	0.019
F	0.40	1.25	0.016	0.049
G	1.27BSC		0.050BSC	
J	0.18	0.25	0.007	0.009
K	0.10	0.25	0.004	0.008
P	5.80	6.20	0.229	0.244
R	0.25	0.50	0.010	0.019

Recommended Pad Layout Dimensions



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.14	1.40	0.045	0.055
B	0.64	0.89	0.025	0.035
C	6.22	-	0.245	-
D	3.94	4.17	0.155	0.165
E	1.02	1.27	0.040	0.050

Ordering Information

Part Number	Component Package	QTY/Reel	Reel Size
CM1213-06MR-CN	SOP-8	3000PCS	13"

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