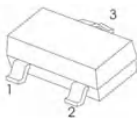
Features

We declare that the material of product compliance with RoHS requirements and Halogen Free.

2 Unidirectional transil functions
Low leakage current:IR max< 20 μA at VRM
300W peak pulse power(8/20μs)
Transient protection for data lines as per
IEC61000-4-2(ESD) ±30KV(air) ±30KV(contact)
IEC61000-4-5(Lightning) see IPPM below

SOT-23



05C

Applications

Computers
Printers
Communication systems

Absolute Maximum Rating

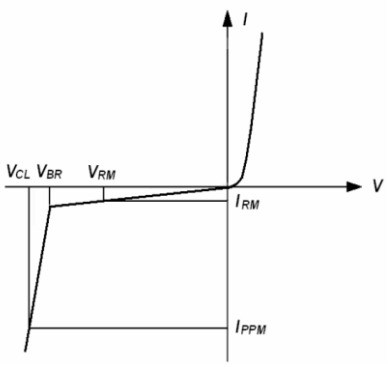
Parameter	Symbol	Limits	Unit
Peak Pulse Power (tp = 8/20μs)	PPP	300	W
Lead Solder Temperature − Maximum (10 Second Duration)	TL	260	ºC
Storage Temperature Range	Tstg	−55～+150	°C
Operating Temperature Range	Top	−40～+125	°C
Maximum junction temperature	Tj	150	°C
Electrostatic discharge IEC61000-4-2 air discharge IEC61000-4-2 contact discharge	ESD	 ±30 ±30	kV

Electrical Characteristics (TA=25°C unless otherwise specified)

DEVICE	VRWM (V)	IR (μA) @VRWM	VBR (V) @IT (Note 1)	IT (mA)	VC (V) @IPP=1A	VC (V) @IPP=5A	IPP(A) @tp=8/20μs	C (pF) f=1MHz
	Max.	Max.	Min.		Max.	Max.	Max.	Max.
SOT05C	5	5	6	1	9.8	12.5	17	220

1. 8/20 waveform used.

Symbol	Parameter
VRM	Stand-off voltage
VBR	Breakdown voltage
VCL	Clamping voltage
IRM	Leakage current
IPPM	Peak pulse current



RATING AND CHARACTERISTIC CURVES

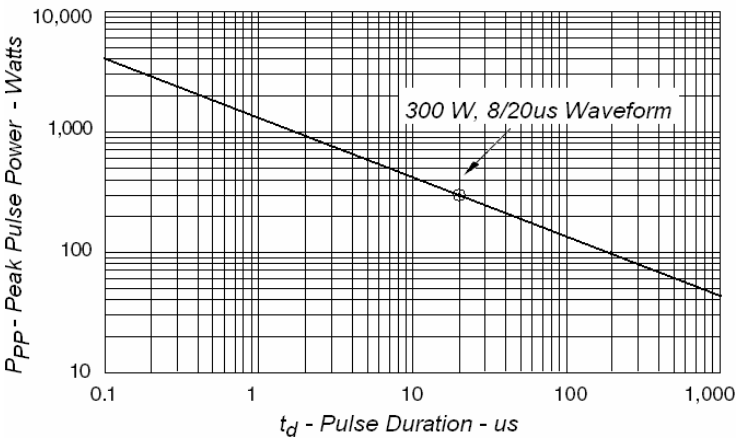


Fig1. Peak Pulse Power VS Pulse Time

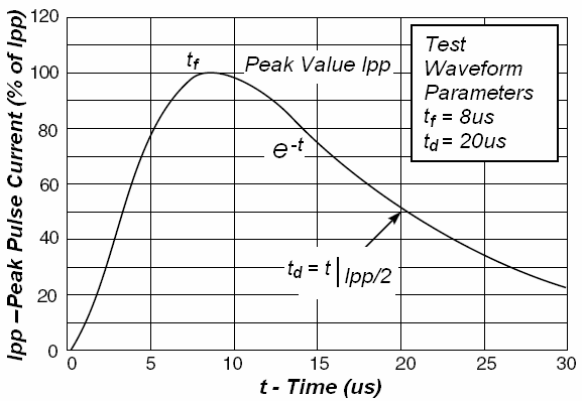


Fig2. Pulse Waveform

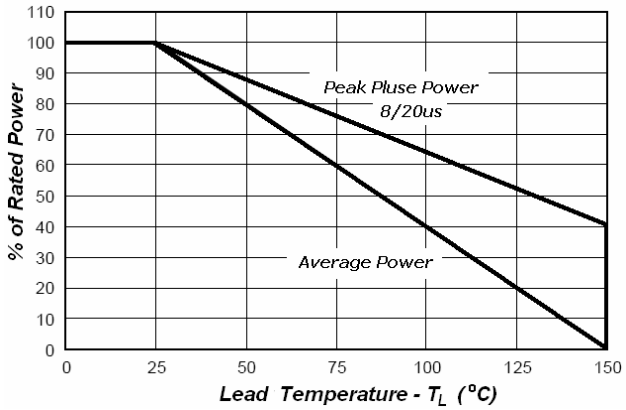
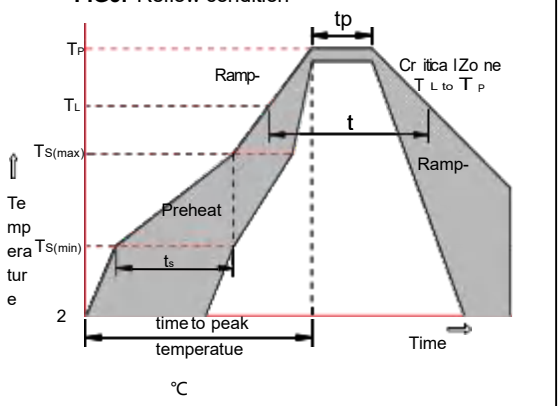


Fig3.Power Derating

Soldering parameters

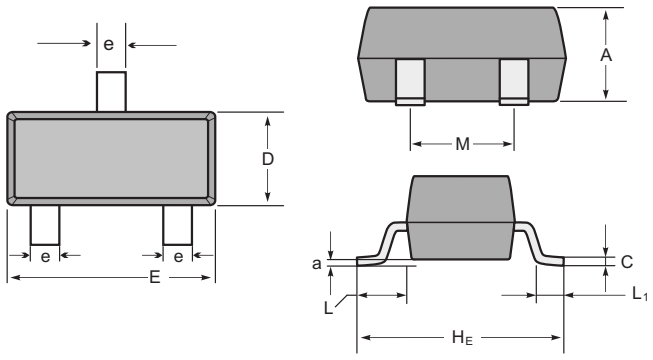
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

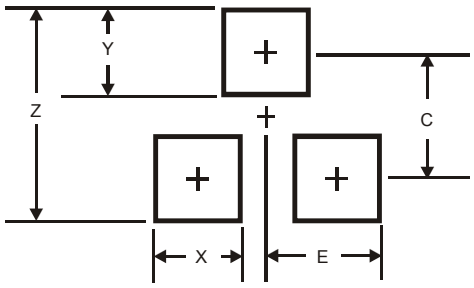
FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout

SOT23





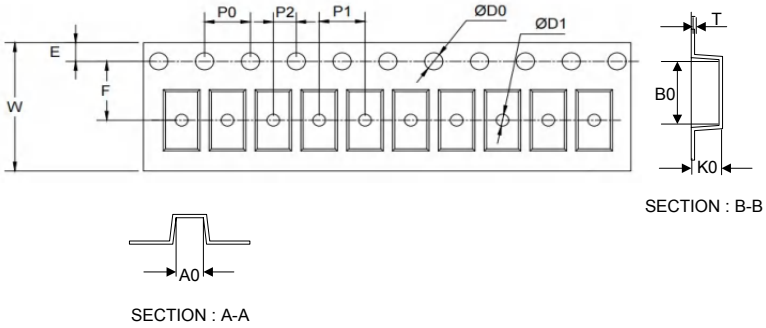
SOT-23 mechanical data

UNIT		A	C	D	E	H_E	e	M	L	L_1	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

Dimensions	SOT23
Z	2.9
X	0.8
Y	0.9
C	2.0
E	1.35

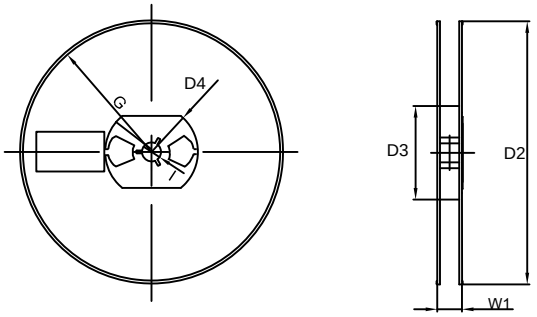
Tape & rell specification

Tape



Symbol	Dimension (mm)
P0	4.00±0.10
P1	4.00±0.10
P2	2.00±0.10
D0	1.55±0.10
D1	1.05±0.10
E	1.55±0.10
F	3.60±0.10
W	8.00±0.10
A0	3.80±0.20
B0	3.25±0.20
K0	1.45±0.10
T	0.25±0.05

7” Reel



D2	178.0±3.0
D3	55Min.
D4	R24.0±3.0
G	R82.0±3.0
I	13.0±2.0
W1	11.0±3.0

Quantity: 3000PCS