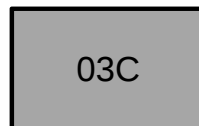


FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- 2 Unidirectional transil functions
- Low leakage current: $I_R \max < 20 \mu A$ at VRM
- 300W peak pulse power(8/20 μs)
- Transient protection for data lines as per IEC61000-4-2(ESD) 30KV(air) 30KV(contact) IEC61000-4-5(Lightning) see IPPM below

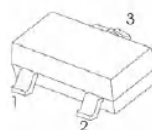
APPLICATIONS

- Computers
- Printers
- Communication systems

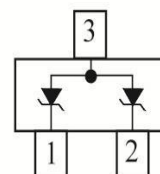


SOT-23

1. GATE
2. SOURCE
3. DRAIN



Equivalent Circuit



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum ratings ($T_a=25^{\circ}C$ unless otherwise noted)

Parameter	Symbol	Limits	Unit
Peak Pulse Power ($t_p = 8/20\mu s$)	PPP	300	W
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	$^{\circ}C$
Storage Temperature Range	Tstg	$-55 \sim +150$	$^{\circ}C$
Operating Temperature Range	Top	$-40 \sim +125$	$^{\circ}C$
Maximum junction temperature	Tj	150	$^{\circ}C$
Electrostatic discharge	VPP		kV
IEC61000-4-2 air discharge		15	
IEC61000-4-2 contact discharge		8	

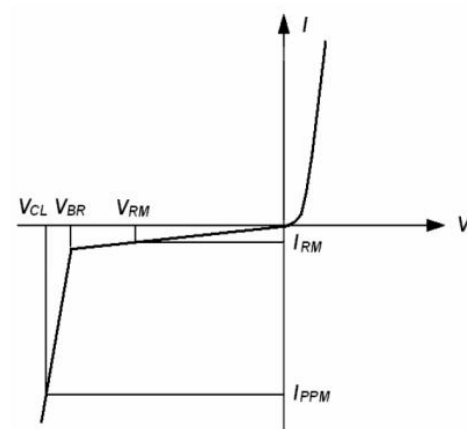
Electrical Characteristics

VRWM (V)	IR (μA) @VRWM	VBR (V) @IT (Note 1)	IT (mA)	VC (V) @IPP=1A	VC (V) @IPP= 13A	IPP(A) @tp=8/20μs	C (pF) f=1MHz
Max.	Max.	Min.		Max.	Max.	Max.	Max.
3.3	1	5	1	12	23	13	220

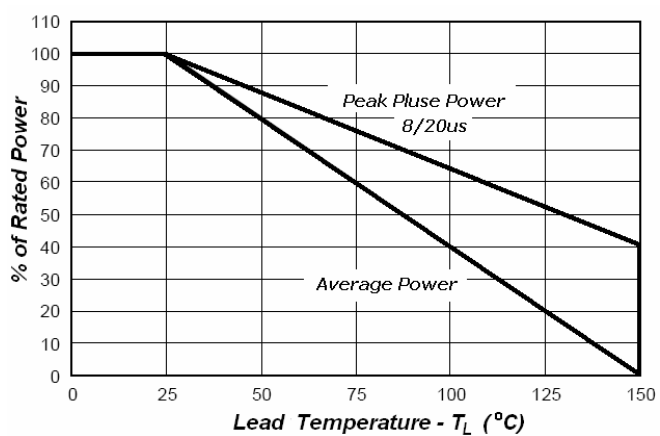
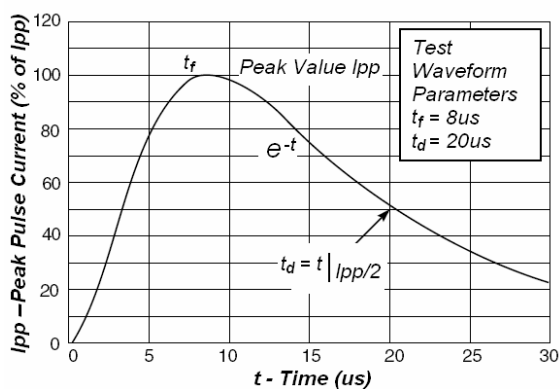
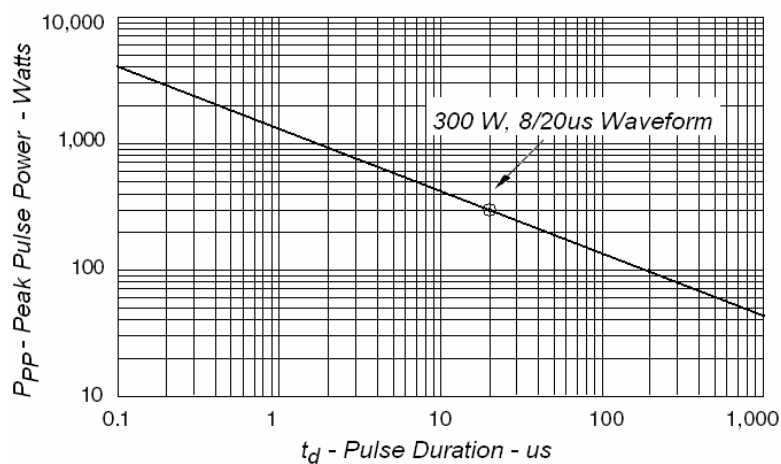
1. 8/20 waveform used.

Electronics Parameter

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

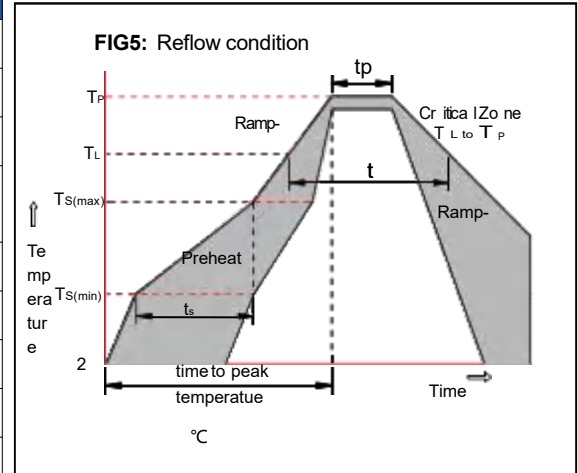


RATING AND CHARACTERISTIC CURVES



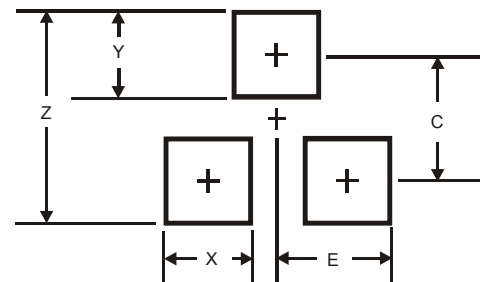
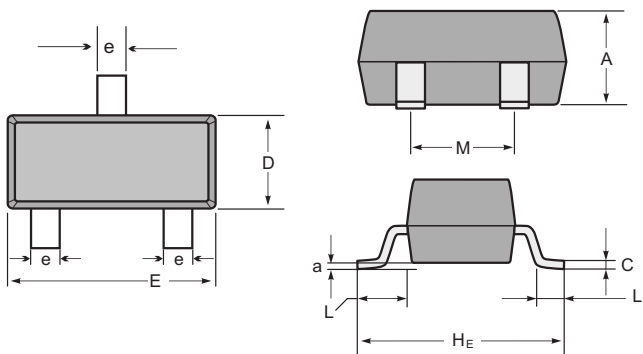
Soldering parameters

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



Package Dimensions & Suggested Pad Layout

SOT23



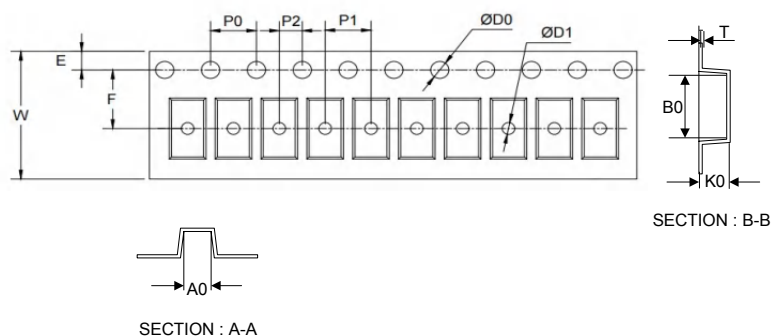
SOT-23 mechanical data

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

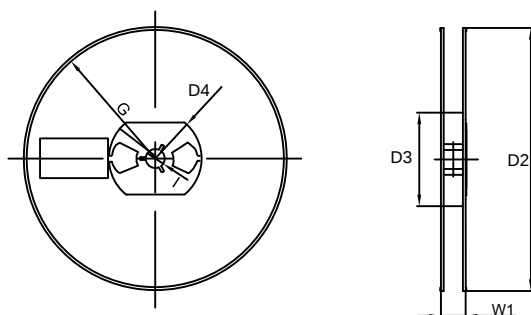
Tape & reel specification

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
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

7" Reel



Quantity: 3000PCS