

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

260W peak pulse power(8/20 μs)

Transient protection for data lines as per IEC61000-4-2(ESD) 23KV(air) 23KV(contact)

IEC61000-4-5(Lightning) see IPPM below

Mechanical Data

SOT-23 package

Molding compound flammability rating: UL 94V-0

Packaging: Tape and Reel

RoHS/WEEE Compliant

Applications

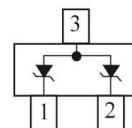
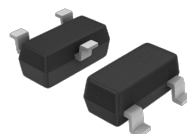
Computers

Printers

Communication systems

WU1

SOT-23



Schematic

Absolute Maximum Rating

Parameter	Symbol	Limits	Unit
Peak Pulse Power ($t_p = 8/20\mu s$)	PPP	260	W
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	°C
Storage Temperature Range	Tstg	-55 ~ +150	°C
Operating Temperature Range	Top	-40 ~ +125	°C
Maximum junction temperature	Tj	150	°C
Electrostatic discharge	VPP		kV
IEC61000-4-2 air discharge		23	
IEC61000-4-2 contact discharge		23	

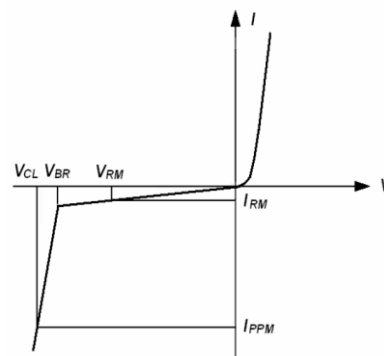
Electrical Characteristics (TA=25°C unless otherwise specified)

DEVICE	VRWM (V)	IR (μA) @VRWM	VBR (V) @IT (Note 1)	IT (mA)	VC (V) @IPP=1A	VC (V) @IPP= 13A	IPP(A) @tp=8/20μs	C (pF) f=1MHz
	Max.	Max.	Min.		Max.	Max.	Max.	Max.
PESD5V2S2UT	5	5	6	1	12	20	13	200

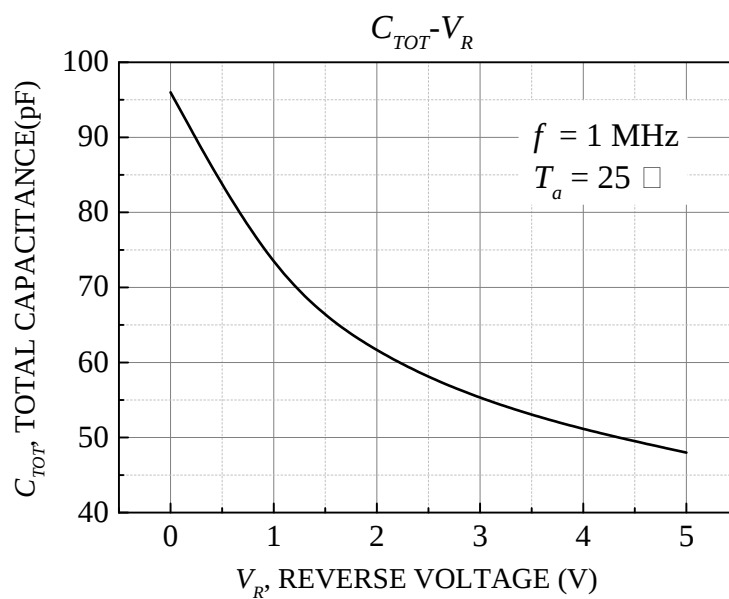
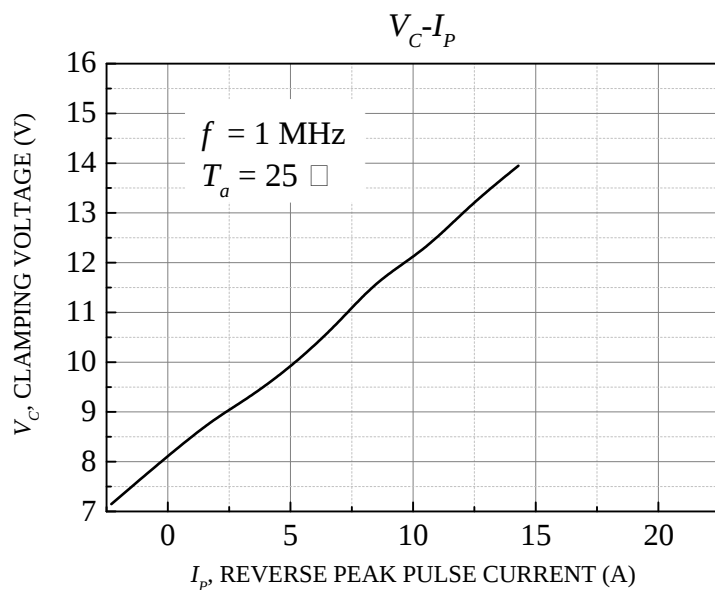
1. 8/20 waveform used.

Electrical Parameters (TA = 25°C unless otherwise noted)

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

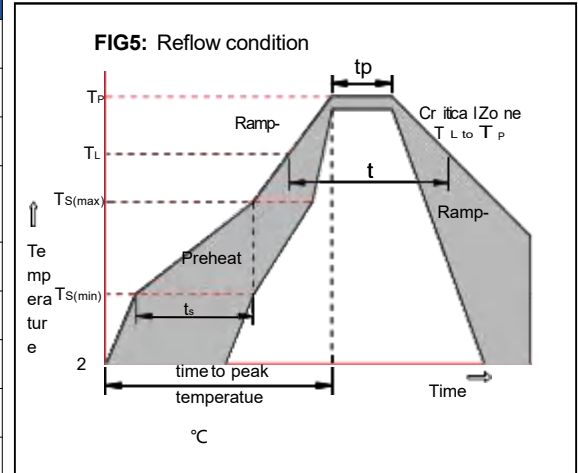


RATING AND CHARACTERISTIC CURVES



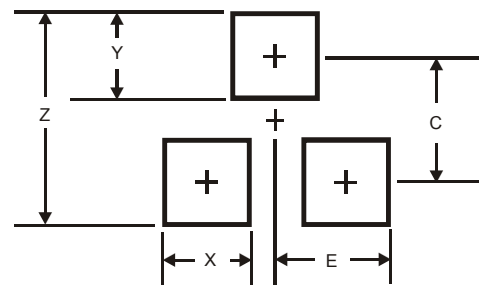
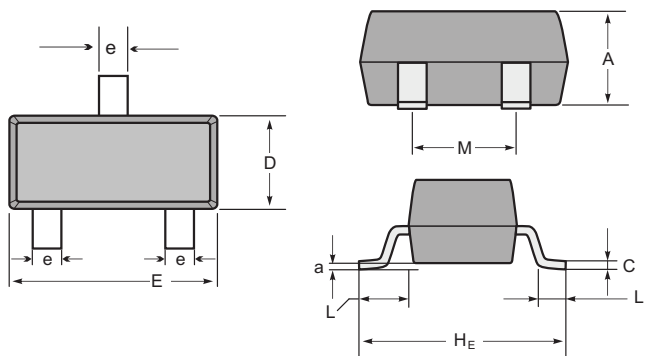
Soldering parameters

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

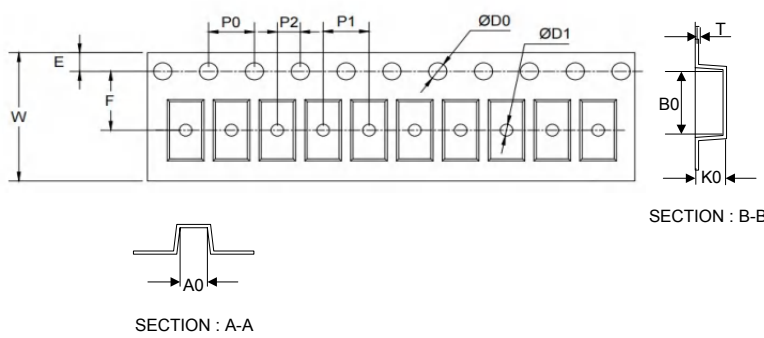
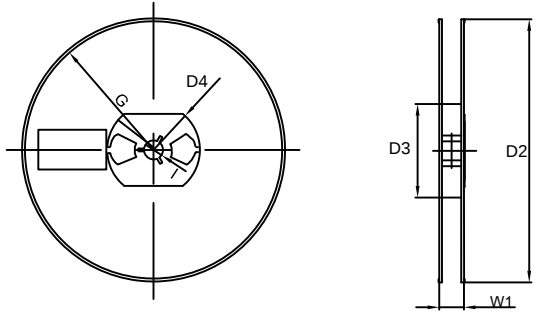


SOT-23 mechanical data

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)	0.15
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.0
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	6
	min	35	3	47	110	87	12	67			0.0

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
7" Reel		G	R82.0±3.0
		I	13.0±2.0
		W1	11.0±3.0
		Quantity: 3000PCS	