

FEATURES

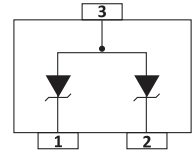
- | 350W Peak Pulse Power per Line (tp=8/20μs)
- | Protects one bidirectional line or two unidirectional lines
- | Low clamping voltage

APPLICATIONS

- | Cellular Handsets and Accessories
- | Portable Electronics
- | Industrial Controls
- | Set-Top Box
- | Instrumentation
- | Servers, Notebook, and Desktop PC



SOT-23



Schematic Symbol

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

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

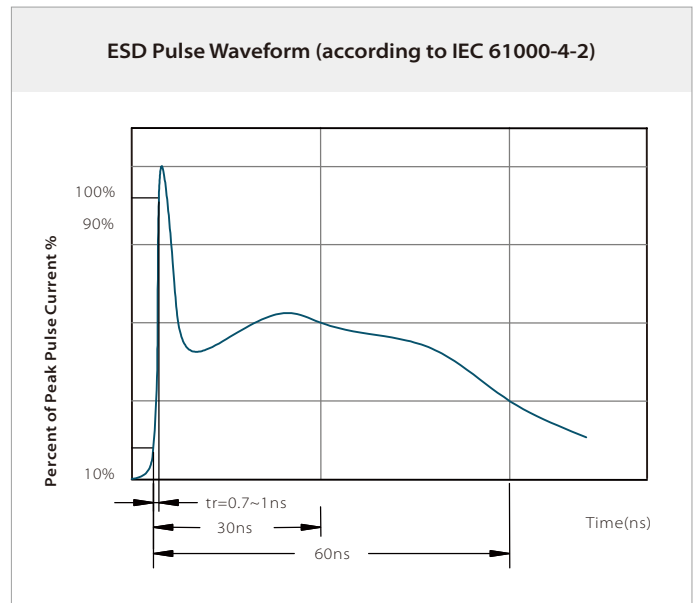
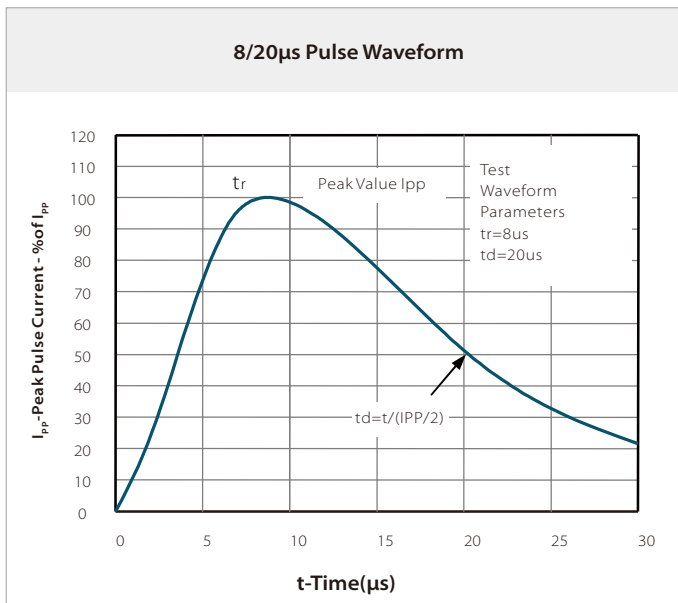
THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
P_{PP}	Peak Pulse Power (tp=8/20μs waveform)	350	Watts
T_J	Operating Temperature Range	-55 to +150	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

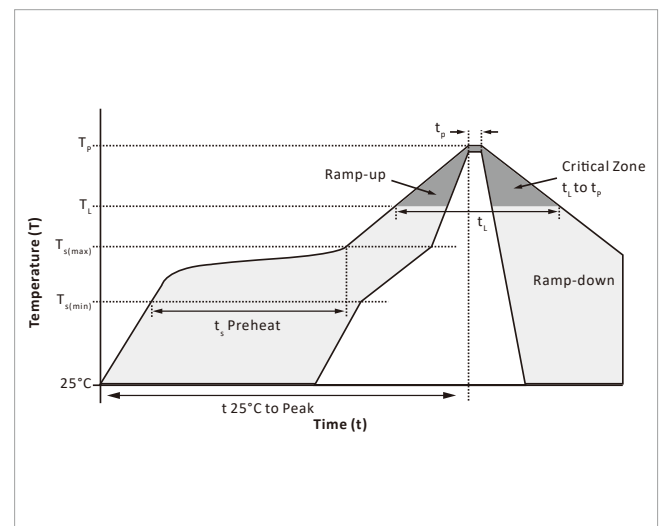
PART NUMBER	Marking	V_{RWM} (V) Max.	V_B (V) Min.	I_T mA	$V_C@1A$ (V) Max.	V_C (V)		I_R (μA) Max.	C_J (pF) Max.
						Max.	(@A)		
SM03	M03	3.3	4.0	1.0	7.0	14.0	20.0	40.0	450
SM05	M05	5.0	6.0	1.0	9.8	18.0	17.0	10.0	300
SM08	M08	8.0	8.5	1.0	13.4	24.0	15.0	2.0	240
SM12	M12	12.0	13.3	1.0	19.0	32.0	11.0	1.0	130
SM15	M15	15.0	16.7	1.0	24.0	38.0	10.0	1.0	120
SM18	M18	18.0	20.0	1.0	29.0	45.0	9.0	1.0	100
SM20	M20	20.0	22.3	1.0	35.0	50.0	8.0	1.0	90.0
SM24	M24	24.0	26.7	1.0	43.0	52.0	7.0	1.0	80.0
SM36	M36	36.0	40.0	1.0	60.0	75.0	5.0	1.0	60.0

CHARACTERISTIC CURVES

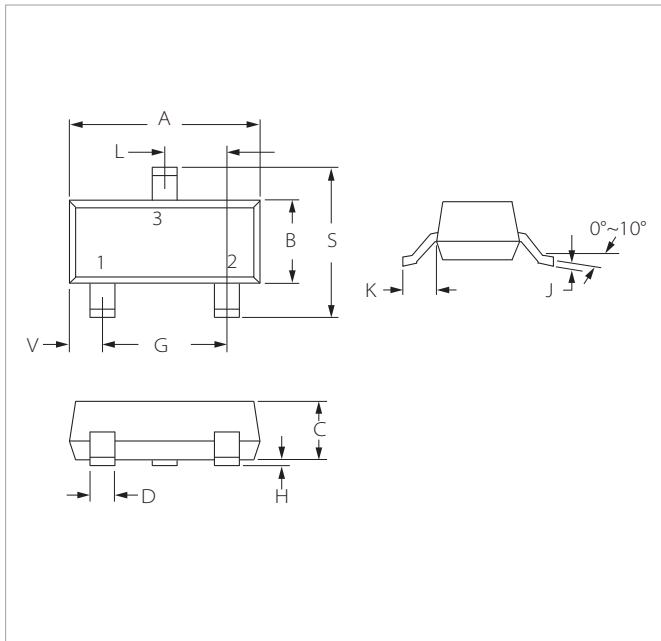


SOLDERING PARAMETERS

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_p)	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_r)	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

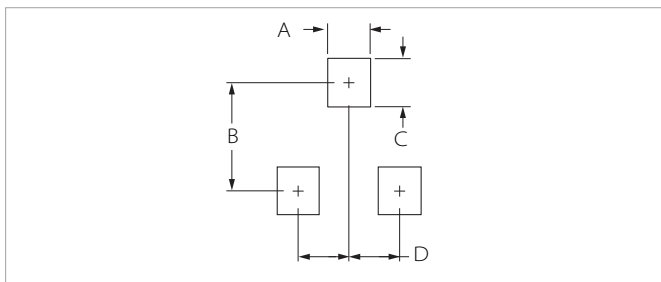


SOT-23 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.04	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.89	1.11	0.035	0.044
D	0.37	0.50	0.015	0.020
G	1.78	2.04	0.070	0.081
H	0.01	0.10	0.001	0.004
J	0.08	0.18	0.003	0.007
K	0.35	0.69	0.014	0.029
L	0.89	1.02	0.035	0.040
S	2.10	2.64	0.083	0.104
V	0.45	0.60	0.018	0.024

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.71	0.97	0.028	0.038
B	1.88	2.13	0.074	0.084
C	0.71	0.97	0.028	0.038
D	0.81	1.07	0.032	0.042

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SM03~SM24	SOT-23	3000PCS	7"

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