

Features

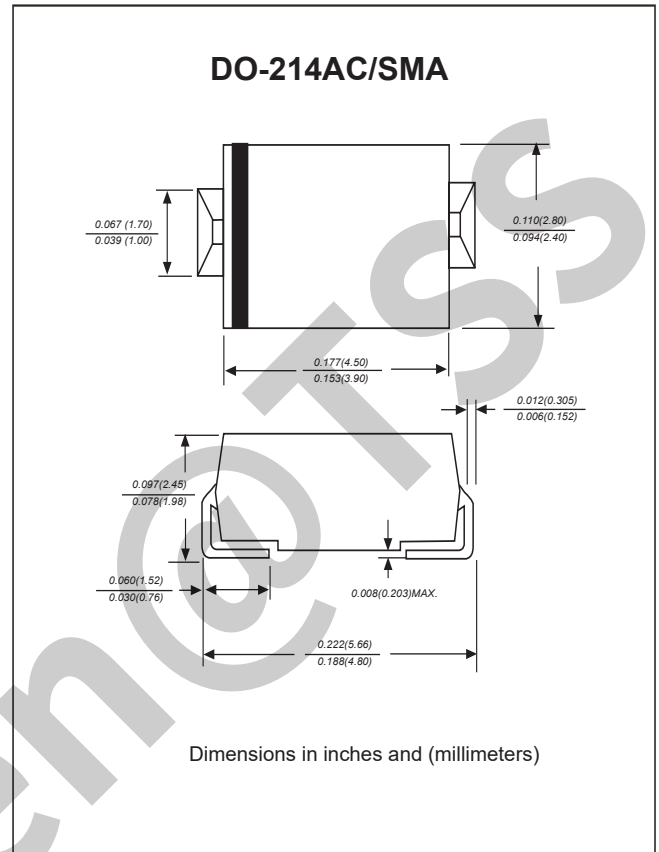
- Cannot be damaged by voltage
- Eliminate hysteresis and heat dissipation typically found with clamping devices
- Eliminate voltage overshoot caused by fast-rising transients
- Are non-degenerative
- Will not fatigue
- Meets MSL level 1, per J-STD-020

Mechanical Data

- Package: SMA/DO-214AC
- Case Material: Green Molding Compound
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0
- Standard Packaging: 12mm tape (EIA STD RS-481)
- Weight: 0.07g

Applications

- SLIC Line Card
- T1/E1 Trunk & Line Card
- DBX Branch Exchange Switches
- FCC Part 68 Customer Premise Equipment
- Line Interface Modem
- xDSL Architecture Interface



Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$, RH=45%-75%, unless otherwise noted)

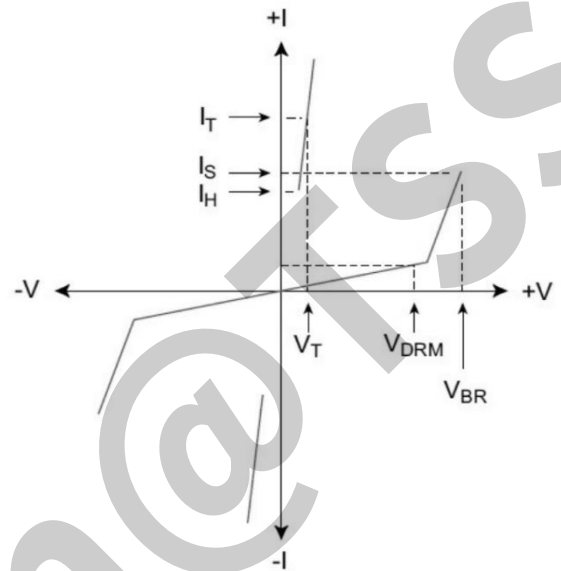
Parameter	Symbol	Value	Unit
Storage temperature range	T_{stg}	-60 to +150	$^{\circ}\text{C}$
Operating junction temperature range	T_j	-40 to +150	$^{\circ}\text{C}$
Repetitive peak pulse current	I_{PP}	80	A

Electrical Characteristics ($T_A=25^{\circ}\text{C}$)

Part Number	V_{RM}	I_{RM}	V_{BO}	I_{BO}	V_{T}	I_{T}	C_j	I_{H}
	Min.	Max.	Max.	Max.	Max.	Max.	Max.	Typ.
	V	μA	V	mA	V	A	pF	mA
P0080TB-MC	6	5	25	800	4	2.2	20	10

Electrical Parameters & V-I Curve

Symbol	Parameter
V_{DRM}	Peak off-state voltage
I_{DRM}	Off-state current
V_{S}	Switching voltage
I_{S}	Switching current
V_{T}	On-state voltage
I_{T}	On-state current
I_{H}	Holding current
C_{O}	Off-state capacitance



Surge Ratings

Series	I_{PP} (A) min			
	2×10us	8×20us	10×320us	10×1000us
B	250	250	100	80

V-I Characteristics Curves ($T_A=25^\circ\text{C}$, unless otherwise noted)

FIG.1: $t_r \times t_d$ pulse waveform

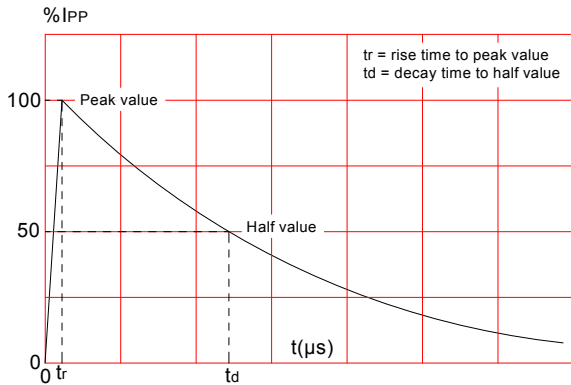


FIG.2: Reflow condition

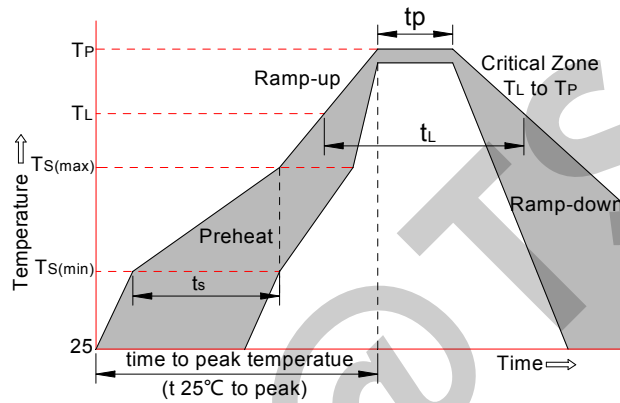


FIG.3: Normalized V_s change vs. junction temperature

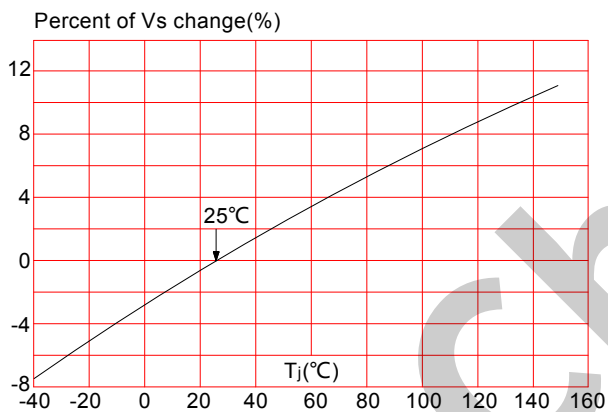
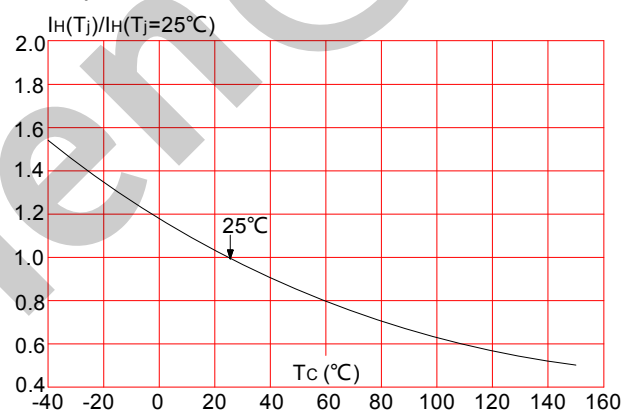
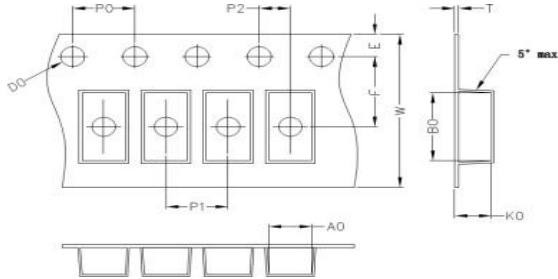


FIG.4: Normalized DC holding current vs. case temperature

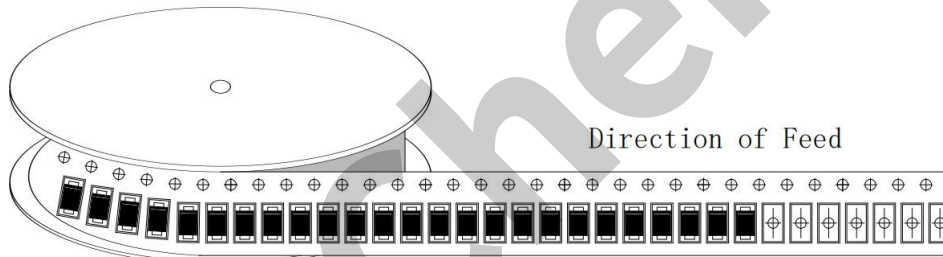
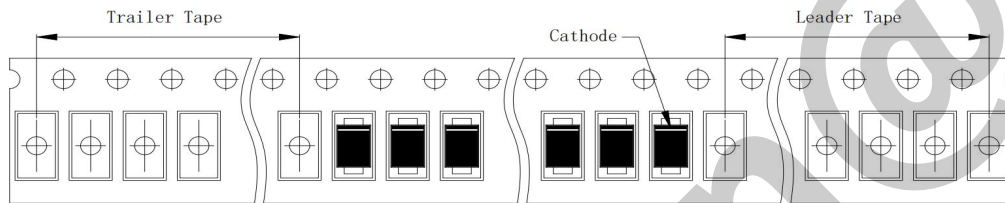


Package Information

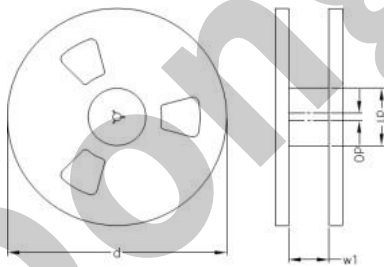
Carrier Dimension(mm)



A0	B0	K0	D0	E	F
2.79 ±0.2	5.33 ±0.2	2.36 ±0.2	1.50 ±0.1	1.75 ±0.2	5.50 ±0.2
P0	P1	P2	T	W	
4.0 ±0.1	4.0 ±0.1	2.0 ±0.1	0.23 ±0.05	12 ±0.5	
Trailer Tape		50 Empty Pockets			
Leader Tape		100 Empty Pockets			



Reel Dimension(mm)



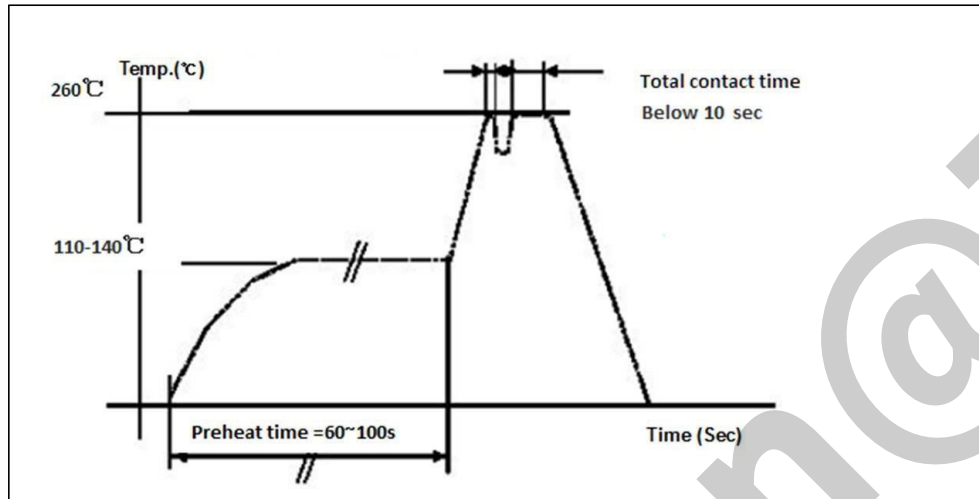
d	d0	d1	w1	t1
330 ±2.0	13.5 ±0.2	100 ±0.5	13.5 ±0.5	1.20 ±0.2

Package Specifications

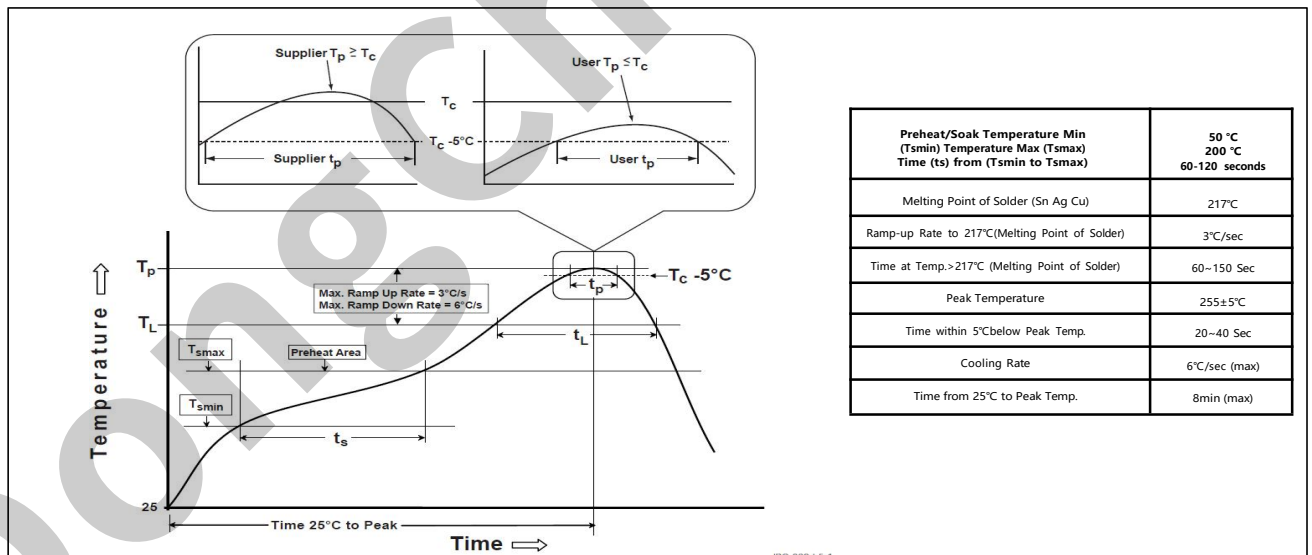
Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
SMA	13'	330	7.5	340*340*40	15	435*370*365	150

Recommended Soldering Profile for Rectifier Diodes (Pb Free)

a) Wave Soldering Profile



b) Reflow Soldering Profile (Pb Free Application), refer to IPC/JEDEC J-STD-020

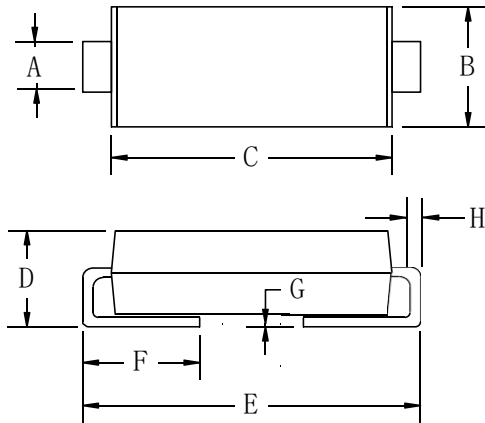


c) Manual Soldering

When using an electric soldering iron for manual soldering, it is recommended that the temperature does not exceed 300°C and the soldering time is less than 10 seconds.

Package Mechanical Data

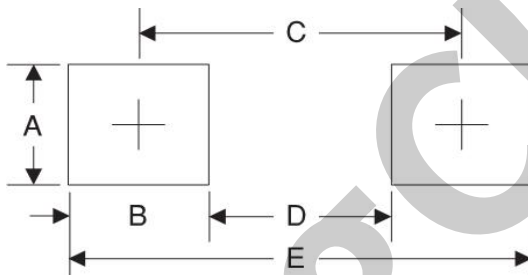
DO-214AC(SMA)



DO-214AC (SMA)		
Dim	Min	Max
A	1.30	1.70
B	2.40	2.80
C	3.90	4.50
D	2.00	2.50
E	4.80	5.30
F	0.76	1.53
G	0.00	0.203
H	0.152	0.305

Suggested Pad Layout

Dimensions in millimeters



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.90	0.154
D	2.41	0.095
E	5.45	0.215

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