

## FEATURES

- | Excellent capability of absorbing transient surge
- | Quick response to surge voltage
- | Eliminates over voltage caused by fast rising transients
- | Solid-state silicon technology, non degenerative



SMA(DO-214AC)



Schematic Symbol

## APPLICATIONS

- | Audio/Video line
- | Network and telecom
- | Data lines and security systems
- | Serial ports

## APPROVALS

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

## ELECTRICAL CHARACTERISTICS

Part Number	Marking	$V_{DRM}$	$V_S$	$V_T$	$I_{DRM}$	$I_S$	$I_T$	$I_H$	$C_o$
		Min. (V)	Max. (V)	Max. (V)	Max. ( $\mu$ A)	mA	Max. (A)	Min. (mA)	Typ.(pF)
P0060TB	P006B	6	15	4	5	800	2.2	40	80
P0080TB	P008B	6	25	4	5	800	2.2	40	80
P0150TB	P015B	15	25	4	5	800	2.2	40	80
P0220TB	P022B	15	30	4	5	800	2.2	40	80
P0300TB	P03B	25	40	4	5	800	2.2	40	80
P0640TB	P06B	58	77	4	5	800	2.2	120	60
P0720TB	P07B	65	88	4	5	800	2.2	120	60
P0900TB	P09B	75	98	4	5	800	2.2	120	55
P1100TB	P11B	90	130	4	5	800	2.2	120	55
P1300TB	P13B	120	160	4	5	800	2.2	120	55
P1500TB	P15B	140	180	4	5	800	2.2	120	60
P1800TB	P18B	170	220	4	5	800	2.2	120	60
P2300TB	P23B	190	260	4	5	800	2.2	120	55
P2600TB	P26B	220	300	4	5	800	2.2	120	50
P3100TB	P31B	275	350	4	5	800	2.2	120	45
P3500TB	P35B	320	400	4	5	800	2.2	120	40
P4200TB	P42B	400	520	4	5	800	2.2	$\leq$ 50	40

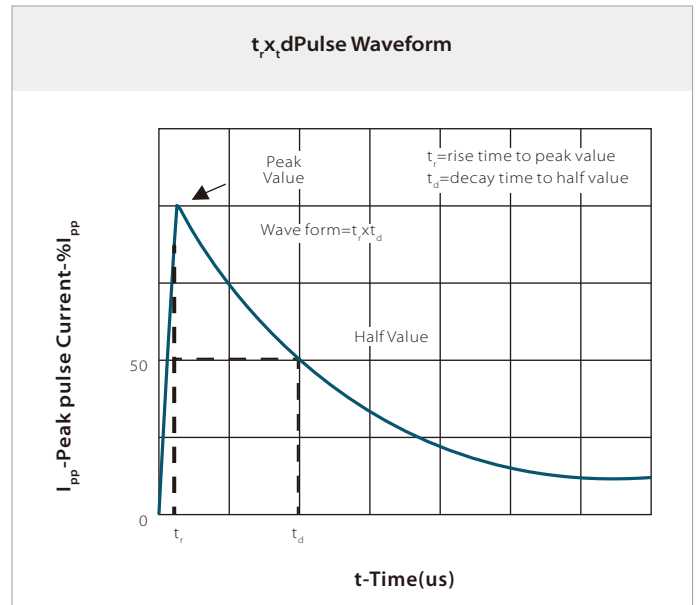
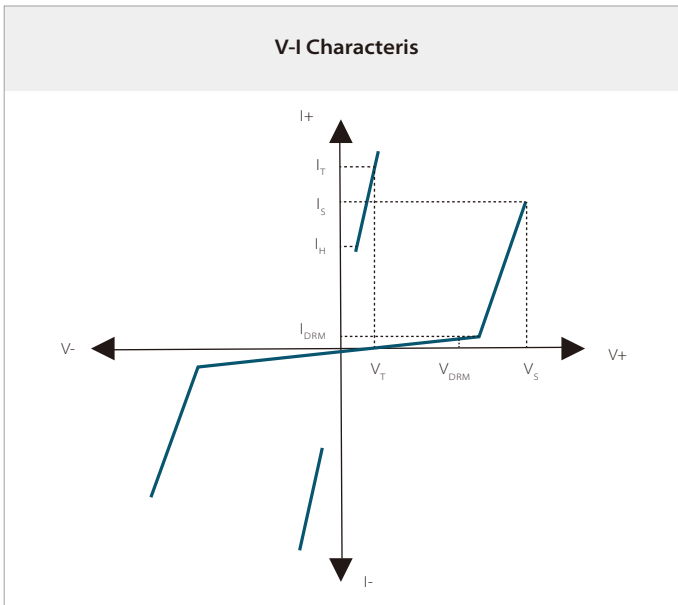
## SURGE RATINGS

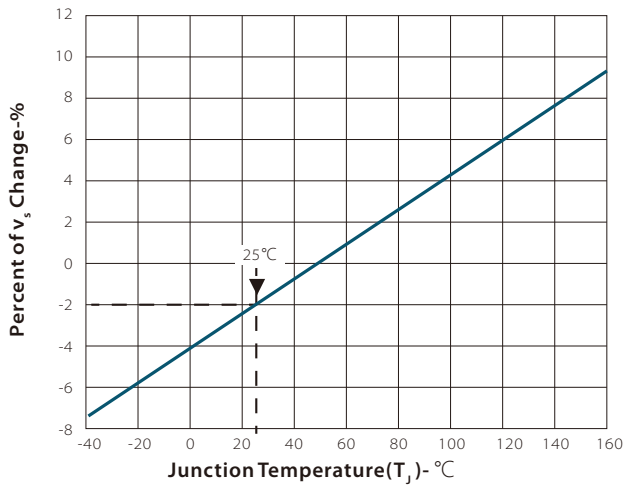
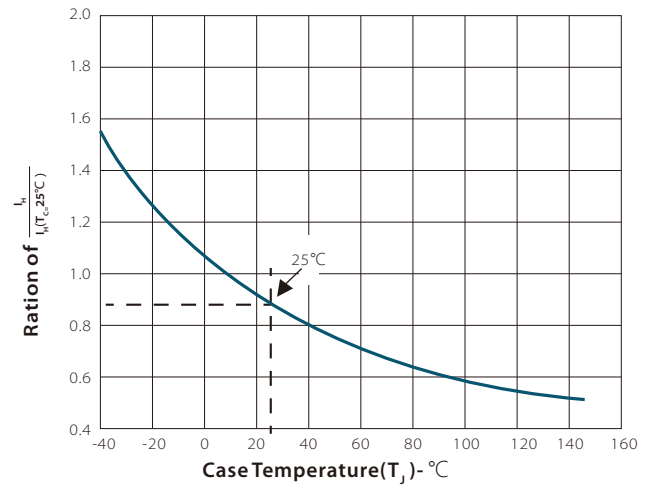
Part Number	$I_{PP}$ 2x10us	$I_{PP}$ 8x20us	$I_{PP}$ 10x560us	$I_{PP}$ 10x1000us	$V_{PP}$ 10x700us	$I_{TSM}$ 60Hz	$d_i/d_t$
	(A)	(A)	(A)	(A)	(V)	(A)	(A/us)
P0060TB Thru P4200TB	250	250	100	80	4000	25	500

## THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Junction to Ambient on printed circuit	90	°C/W
$T_J$	Operating Junction Temperature	-55 to +150	°C
$T_{STG}$	Storage Temperature Range	-55 to +150	°C

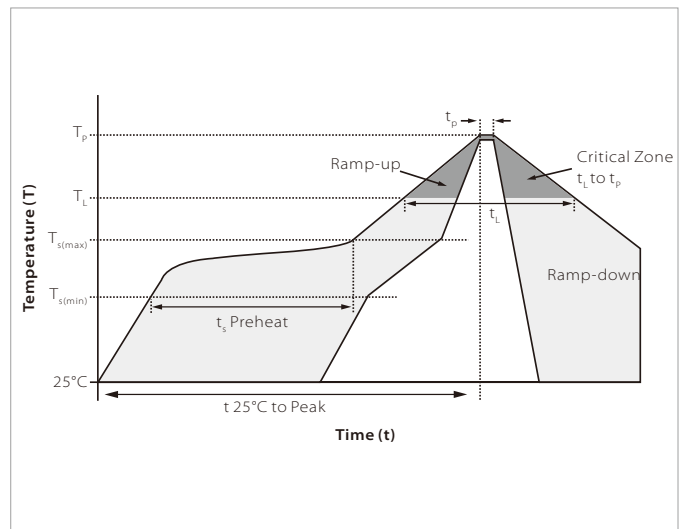
## RATINGS AND CHARACTERISTIC CURVES ( $T_A=25^\circ\text{C}$ )



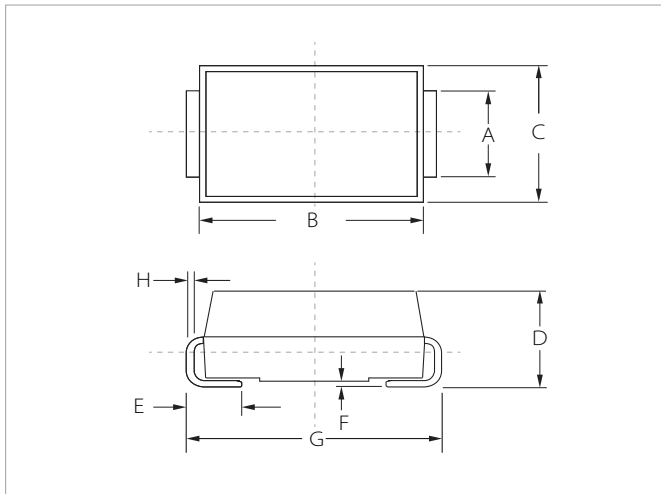
**Normalized VSChange vs. Junction Temperature**

**Normalized DC Holding Current vs. Case Temperature**


## 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) ( $t_s$ )	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

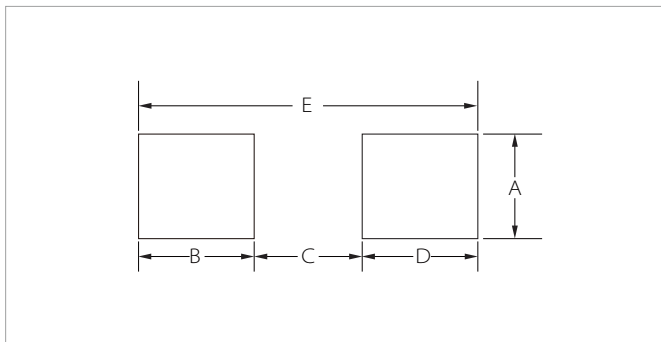


## DO-214AC(SMA) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.20	1.60	0.047	0.063
B	4.20	4.60	0.165	0.181
C	2.60	2.80	0.102	0.110
D	2.10	2.40	0.083	0.094
E	0.76	1.52	0.030	0.060
F	0.02	0.20	0.001	0.008
G	4.85	5.25	0.191	0.207
H	0.15	0.30	0.006	0.012

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.63	-	0.064	-
B	1.45	-	0.057	-
C	-	2.80	-	0.090
D	1.45	-	0.057	-
E	5.28REF		0.208REF	

## ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
PxxxxTB	DO-214AC(SMA)	5000PCS	13"

To find your local partner within Semiwell's website : [www.semiwell.com.cn](http://www.semiwell.com.cn)

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