

DESCRIPTION

The STA30B6.0M protect telecommunications equipment such as modems, line cards, fax machines, and other CPE . The STA30B6.0M is used to enable equipment to meet various regulatory requirements including GR1089, ITUK.20, K.21 and K.45, IEC 60950, and TIA-968 (formerly known as FCC Part 68).

FEATURES

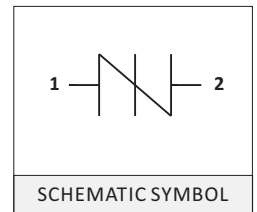
- > Excellent capability of absorbing transient surge
- > Quick response to surge voltage
- > Eliminates overvoltage caused by fast rising transients
- > Solid-state silicon technology, non degenerative

APPLICATIONS

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



DO-214AC PACKAGE



SCHEMATIC SYMBOL

PART NUMBER AND ELECTRICAL PARAMETER @ T=25°C RH = 45%-75%

PART NUMBER	Marking	V _{DRM} V Min.	I _{DRM} uA Max.	V _s V Max.	I _s mA	V _r V Max.	I _r A	I _H mA	C _o pF Max.	V _{pp} V 10x700us	I _{pp} A 5x310us
STA30B6.0M	M006	6	5	25	800	4	2.2	≥40	8	2000	50

- 1、Vs is measured at 100KV/S
- 2、Off-state capacitance is measured in V_{DC}=2V, V_{RMS}=1V, F=1MHz
- 3、All measurements are made at an ambient temperature of 25°C

THERMAL CONSIDERATIONS

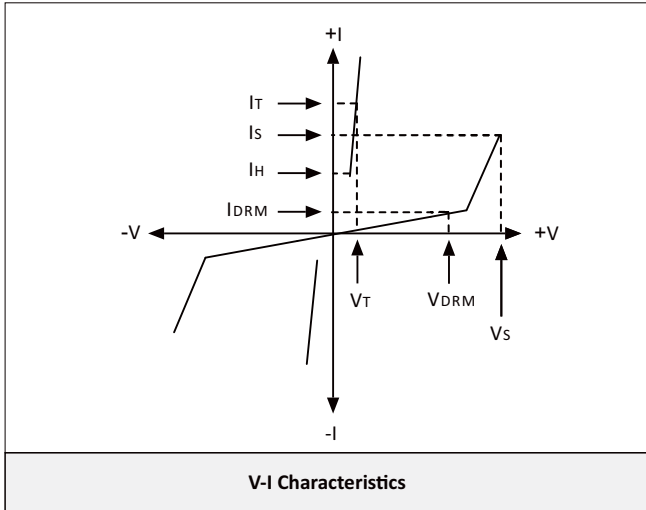
Symbol	Parameter	Value	Unit
T _J	Operating Junction Temperature	-55 to +125	°C
T _s	Storage Temperature Range	-55 to +150	°C
R _{θJA}	Junction to Ambient on printed circuit	120	°C/W

ORDERING INFORMATION

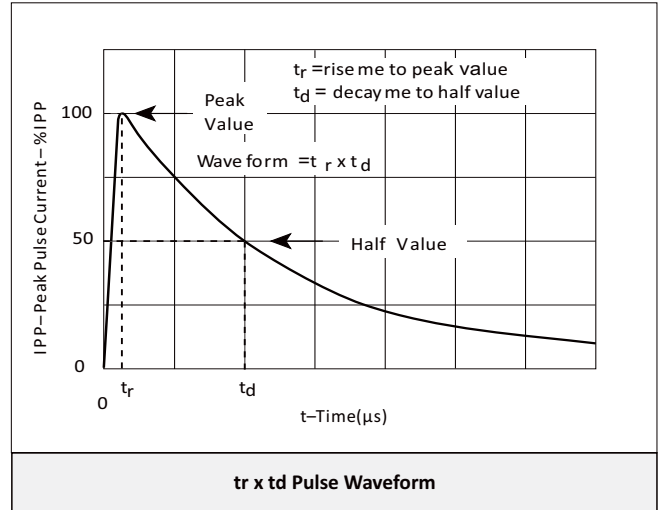
Part Number	Component Package	QTY/Reel	Reel Size
STA30B6.0M	DO-214AC(SMA)	5000PCS	13"



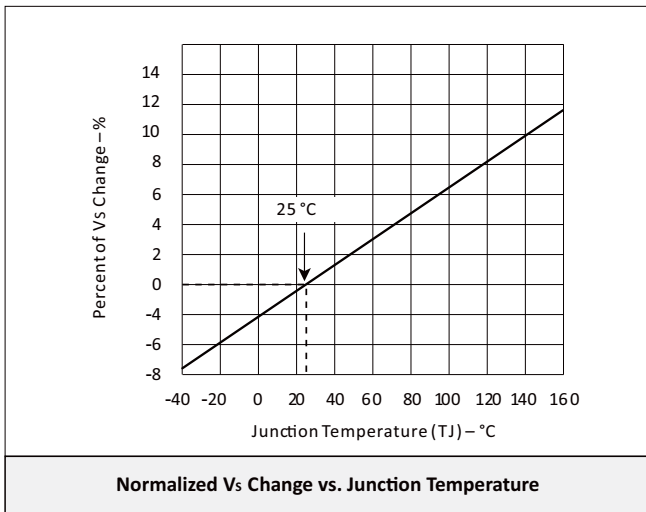
TYPICAL DEVICE CHARACTERISTICS



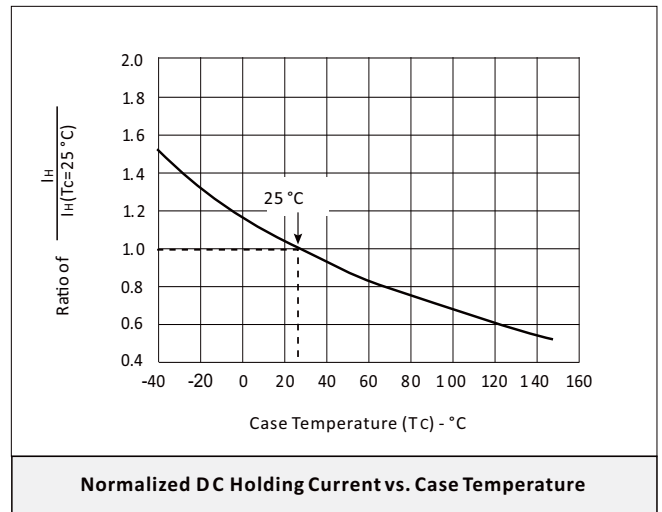
V-I Characteristics



$t_r \times t_d$ Pulse Waveform



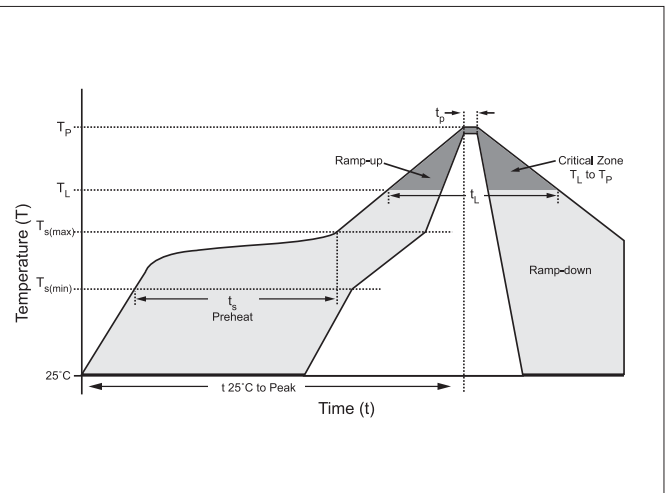
Normalized V_S Change vs. Junction Temperature



Normalized DC Holding Current vs. Case Temperature

SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min ($T_s(\min)$)	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_L)	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



SMA PACKAGE DIMENSIONS

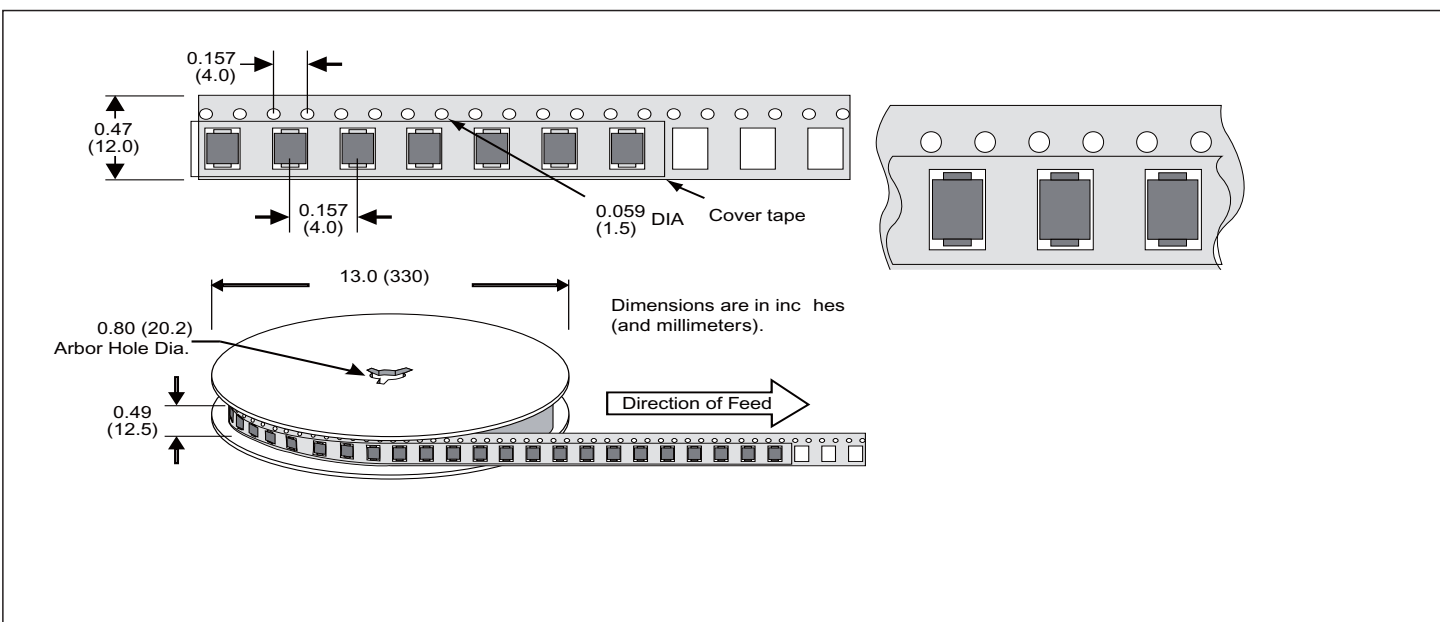
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.23	1.63	0.048	0.064
B	4.10	4.55	0.161	0.179
C	2.60	2.80	0.102	0.110
D	2.15	2.35	0.085	0.093
E	0.75	1.51	0.030	0.059
F	0.02	0.20	0.001	0.008
G	4.87	5.22	0.192	0.206
H	0.15	0.30	0.006	0.012

NOTES:
 1. Dimensions are exclusive of mold flash and metal burrs

RECOMMENDED PAD LAYOUT DIMENSION

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.63	-	0.064	-
B	1.45	-	0.057	-
C	-	2.28	-	0.090
D	1.45	-	0.057	-
E	5.28 REF		0.208 REF	

TAPE AND REEL SPECIFICATION



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