G E SOLID STATE

3875081 G E SOLID STATE

' File Number '1692

- T-11-23 01E 17634 D SURGECTORs

SGT03U13, SGT06U13, SGT23U13

Unidirectional Transient Surge Suppressors

Features:

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- Clamping voltages 33V, 60V, or 230V
- 300A peak transient surge current
- 130 mA minimum holding current Subnanosecond clamping action
- Low on-state voltage

Applications:

- **Telecommunications** equipment
- Data and voice lines
- Computer modems

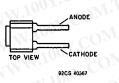
Alarm systems

RCA SURGECTORs are designed to protect telecommunication equipment, data links, alarm systems, power supplies and other sensitive electrical circuits from damage that could be caused by switching transients, lightning strikes, load changes, commutation spikes, and line crosses.

These RCA SURGECTORs are monolithic compound structures consisting of a thyristor whose gate region contains a special diffused section which acts as a zener diode. This zener diode section permits anode voltage turnon of the structure. Initial clamping by the zener diode section and fast turn-on by the thyristor provide excellent voltage limiting even on very fast rise-time transients. The thyristor also features very high holding current allowing the SURGECTOR to recover to it's high impedance offstate after the transient. The SURGECTOR's normal offstate condition in the forward blocking mode is a highimpedance, low-leakage state that prevents loading of the telecommunication line.

AXIMUM RATINGS, Absolute-Maximum Values:					
	SGT03U13	SGT06U13	SGT23U13		
Continuous Off-State VoltageVDM	30	58	225	xv100 1.	
VRM VRM	OD.	The second se	1	V	
ransient Peak Surge CurrentITSM					
$1\mu s \times 2\mu s^*$		300		A	
6μs x 400μs	300	125		A	TCOMP.
10µs x 560µs		90	· · · · · · · · · · · · · · · · · · ·	A	
10μs x 1000μs One Half Cycle, 50-60 Hz**		75 60	[A	
One Second, 50-60 Hz, Halfwave	-1002.0	30	1	Â	
perating Temperature		40 to +85		°C	
torage Temperature	100 m			•0	
*Unit designed not to fail open below 450A.					
"One every 30 seconds maximum.					

TERMINAL DESIGNATIONS



MODIFIED TO-202

力材料 886-3-5753170 勝 特 胜特力电子(上海) 86-21-54151736 胜特力电子(深圳) 86-755-83298787 Http://www. 100y. com. tw

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SGT03U13, SGT06U13, SGT23U13				
ELECTRICAL CHARACTERISTICS, At Case Temperature (T _c = 2	25°C) unless o	LIMITS	cified	<u>т</u>
. CHARACTERISTIC	MIN.	TYP.	MAX.	
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	<u></u>	MIN.	TYP.	MAX.	
Off-State Current At Maximum Rated VDM	Гом		W.100	CON	
T _A = 25°C	N7	- 11	100	50	n/
T _A = 85° C				10	μ
Reverse Current V _{RM} = 1 V	IRM		100		
$T_A = 25^{\circ}C$	M		N VIII	N.00	m
$T_{A} = 85^{\circ}C$	1.		<u></u>	10	m,
Clamping Voltage, Iz = 100 µA	Vz			nov.C	TI
SGT03U13	M.	33	N.V.	J C	
SGT06U13	TIM	60		\00 ≯ .~	. N.V
SGT23U13	0 м.	230			DE.
Breakover Voltage, D _V /D _T = 100V/µs	Vao			1.100	ON
SGT03U13	COL	-117	A.V.	50	V
SGT06U13	COM	<u> </u>	-	85	1 CO
SGT23U13		TV	<u> </u>	275	1
Holding Current		130		N -2	m
On-State Voltage, IT = 10A	VT	1.7 <u>-</u> .		2	
Main Terminal Capacitance	Co		90 🔨		P

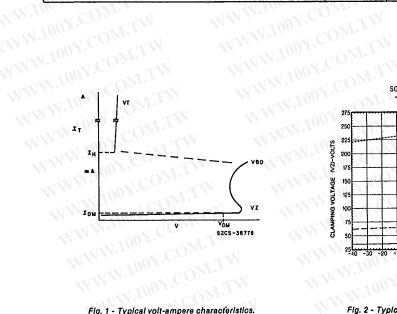


Fig. 1 - Typical volt-ampere characteristics. ...ara

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N.100Y.COM.TW WWW.100Y.COM.TW 100X.COM.TW DY.COM.TW \$GT06U13 SGT23U13 SGT03U13 00Y.COM.TW 100Y.COM.TW 250 225 200 200 75 3 3 W.100Y.COM.TW TW.100Y.COM.TW WW.100Y.COM.TW WWW.100Y.COM.TW WWW 80 2540 -30 -20 WWW.100 AMBIENT TEMPERATURE TAI-degC WWW.100Y.COM.TW VZ23UN3ASUT

Fig. 2 - Typical clamping voltage vs. temperature. WWW.100X.CC WWW.100Y.COM.TW

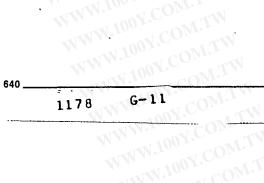
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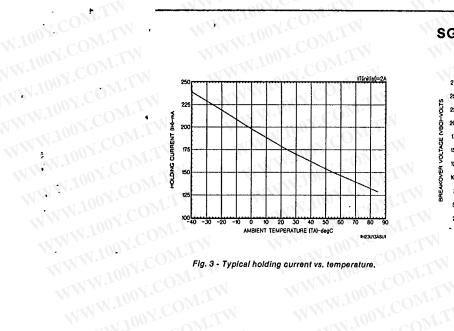
- SURGECTORs

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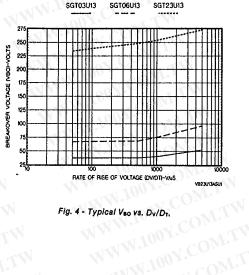


Fig. 4 - Typical Veo vs. Dv/Dr. WWW.100Y.COM.TW

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