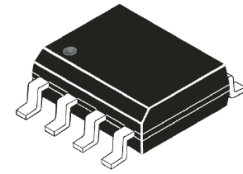
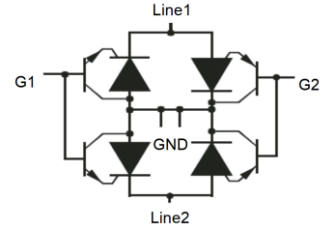


Features

- High Performance Protection for SLICs
- Wide Programming Range(-110V to +110V)
- Low gate triggering current 5 mA max
- Surge capability does not degrade after multiple surge events within its ratings
- High Surge Current Capability
- RoHS Compliant
- MLS: Lever 1 - unlimited



SOP-8L



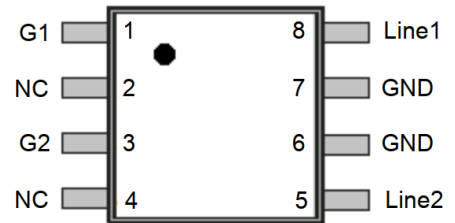
Schematic Diagram

Applications

- Wireless In the Local Loop (WLL)
- Voice applications which require regenerated POTS
- VoIP applications
- PBX
- FXS application
- Digital Pair Gain systems(DPG)
- Digital Loop Carrier systems (DLC)
- Small Office Home Office (SOHO)

Pin Configuration

Pin #	Pin Name	Description
5, 8	K	Connect to subscriber lines (Tip or Ring)
1	G1	Connect to battery ($-V_{(BAT)}$)
3	G2	Connect to battery ($+V_{(BAT)}$)
6, 7	A	Connect ground
2, 4	NC	Not connected



Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Repetitive peak off-state voltage $V_{G1(\text{Line})} = 0, V_{G2} \geq +5 \text{ V}$ $V_{G2(\text{Line})} = 0, V_{G1} \geq -5 \text{ V}$	V_{DRM}	-120 +120	V
Non-repetitive peak impulse current (see Notes 1, 2, 3 and 4) 2/10 μs (Telcordia GR-1089-CORE) 5/310 μs (ITU-T K.20, K.21 & K.45, K.44 open-circuit voltage wave shape 10/700 μs) 10/1000 μs (Telcordia GR-1089-CORE)	I_{PPSM}	± 150 ± 80 ± 50	A
Non repetitive peak on-state current, 50Hz / 60Hz (see Notes 1, 2, 3 and 5) 0.2s 1s 900s	I_{TSM}	9.0 5.0 1.7	A
Maximum negative battery supply voltage	V_{G1M}	-110	V
Maximum positive battery supply voltage	V_{G2M}	+110	V
Maximum differential battery supply voltage	$\Delta V_{(\text{BAT})M}$	220	V

Programmable Overvoltage Protector

Storage temperature range	T_{STG}	-55-150	°C
Junction temperature	T_J	-55-125	°C
Junction to ambient thermal resistance	$R_{\theta JA}$	55	°C /W

NOTES:

- Initially the device must be in thermal equilibrium with $T_J = 25^\circ\text{C}$. The surge may be repeated after the device returns to its initial conditions.
- The rated current values may be applied to either of the Line to Ground terminal pairs. Additionally, both terminal pairs may have their rated current values applied simultaneously (in this case the Ground terminal current will be twice the rated current value of a single terminal pair).
- Rated currents only apply if pins 6 & 7 (Ground) are connected together.
- Applies for the following bias conditions: $V_{G1} = -20\text{ V}$ to -110 V , $V_{G2} = 0\text{ V}$ to $+110\text{ V}$.
- EIA/JESD51-2 environment and EIA/JESD51-7 high effective thermal conductivity test board (multi-layer) connected with 0.6 mm printed wiring track widths.
- EIA/JESD51-2 Environment, $PTOT = 4\text{ W}$, EIA/JESD51-7 high effective thermal conductivity test board (multi-layer) connected with 0.6 mm printed wiring track widths.

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

Symbol	Test Conditions	Min.	Typ.	Max.	Unit
I_D Off-state current	$V_D = V_{DRM}$, $V_{G1(\text{Line})} = 0$, $V_{G2} \geq +5\text{ V}$ $T_A = 25^\circ\text{C}$ $T_A = 85^\circ\text{C}$ $V_D = V_{DRM}$, $V_{G1(\text{Line})} = 0$, $V_{G2} \geq +5\text{ V}$ $T_A = 25^\circ\text{C}$ $T_A = 85^\circ\text{C}$			-5 -50 +5 +50	μA
$I_{G1(\text{Line})}$ Negative-gate Leakage current	$V_{G1(\text{Line})} = -220\text{V}$			-5	μA
$I_{G2(\text{Line})}$ Positive-gate Leakage current	$V_{G2(\text{Line})} = +220\text{V}$			+5	μA
V_{G1T} Gate-Cathode trigger voltage	$V_D = -99\text{ V}$, $V_T = -3.5\text{V}$			+2.5	V
V_{G2T} Gate-Cathode trigger voltage	$V_D = 99\text{ V}$, $V_T = 3.5\text{V}$			-2.5	V
I_H^- Negative holding current	$I_G = 99\text{ mA}$, $I_T = -1\text{A}$, $V_T = -3.5\text{V}$	-50			mA
I_{G1T} Negative-gate trigger current	$V_D = -99\text{ V}$, $V_T = -3.5\text{V}$			+5	mA
I_{G2T} Positive-gate trigger current	$V_D = 99\text{ V}$, $V_T = 3.5\text{V}$			-5	mA
C_O Line-ground off-state capacitance	$f = 1\text{MHz}$, $V_D = -3\text{V}$, G1 & G2 open circuit		32		pF

Typical Characteristic Curves

Fig.1 Off-state capacitance vs off-state voltage

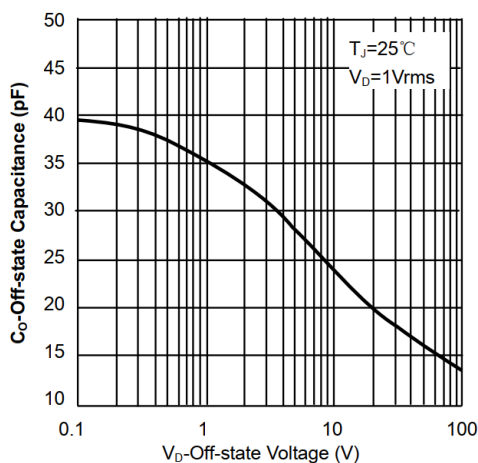
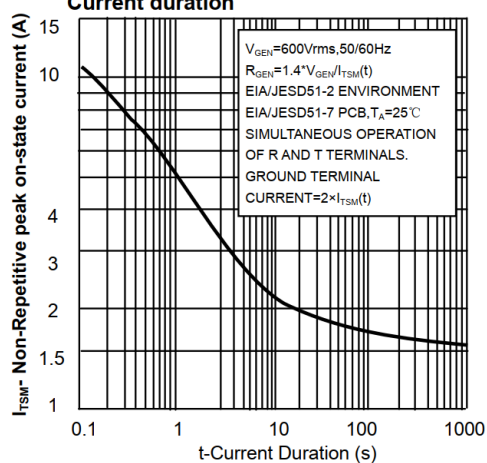
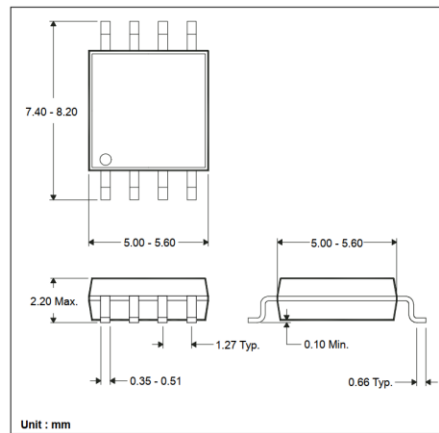


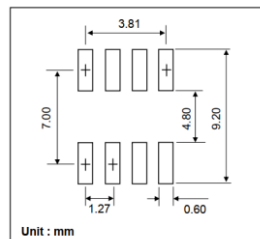
Fig.2 Non-Repetitive peak on-state current vs Current duration



Product Dimension

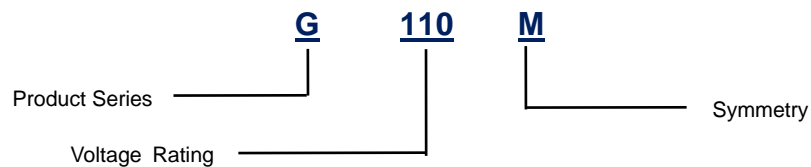


PAD Dimension



Marking and Order Information

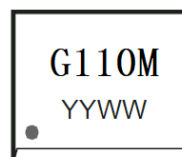
Part Number System



Order Information

Device	Package	Carrier	Quantity	HSF Status
G110M	SOP-8L	Tape & Reel	2,000pcs/reel	RoHS compliant

Marking



YYWW = Date Code

Specifications are subject to change without notice.

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