BL GALAXY ELECTRICAL

P064M --- P350M

THYRISTOR SURGE PROTECTIVE DEVICE

V_{DRM}: 58 - 320 V

I_{PP}: 50 A

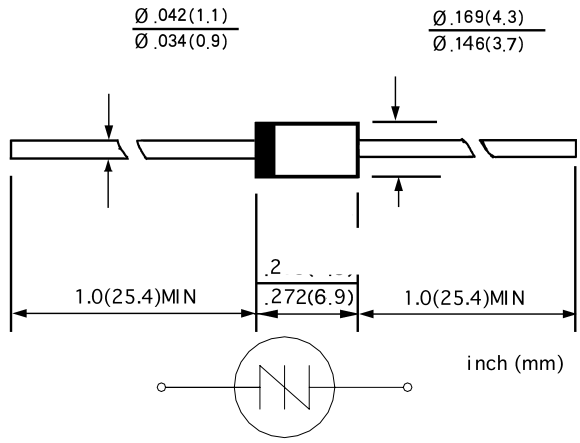
FEATURES

- ◇ Oxide glass passivated junction
- ◇ Bidirectional protection in a single device
- ◇ Surge capabilities up to 50A @10/1000us or 150A @8/20us
- ◇ High off state impedance and low on state voltage
- ◇ Plastic material has U/L flammability classification 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC DO-15B molded plastic
- ◇ Polarity: Denotes none cathode band
- ◇ Weight: 0.4 grams

DO - 15B



MAXIMUM RATINGS

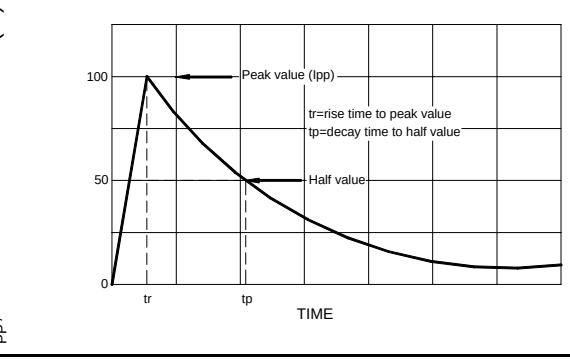
CHARACTERISTICS	SYMBOL	VALUE	UNIT
Non-repetitive peak impulse current @ 10/1000us	I_{PP}	50	A
Non-repetitive peak on-state current @ 8.3ms (one half cycle)	I_{TSM}	25	A
Junction temperature range	T_J	-55 --- +150	℃
Storage temperature range	T_{STG}	-55 --- +150	℃

THERMAL RESISTANCE

CHARACTERISTICS	SYMBOL	VALUE	UNIT
Junction to leads	$R_{\theta JL}$	20	℃/W
Junction to ambient on print circuit (on recommended pad layout)	$R_{\theta JA}$	100	℃/W
Typical positive temperature coefficient for brekdown voltage	V_{BR}/T_J	0.1	%/℃

MAXIMUM RATED SURGE WAVEFORM

WAVEFORM	STANDARD	I_{PP}(A)
2/10 us	GR-1089-CORE	300
8/20 us	IEC 61000-4-5	250
10/160 us	FCC Part 68	120
10/700 us	ITU-T K20/21	100
10/560 us	FCC Part 68	75
10/1000 us	GR-1089-CORE	50



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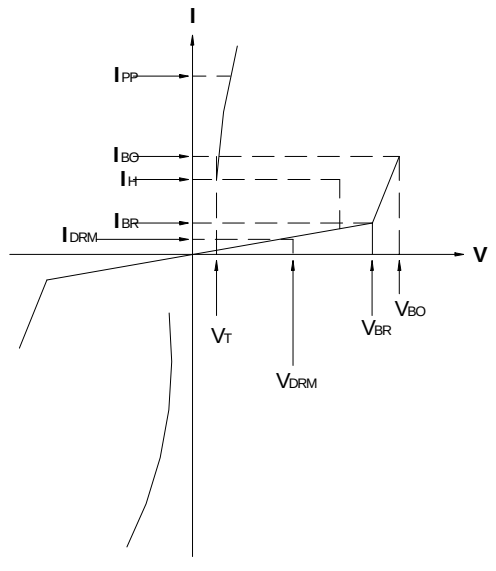
RATINGS AND CHARACTERISTIC CURVES

P064M --- P350M

RARAMETER	RATED REPETITIVE OFF-STATE VOLTAGE	OFF-STATE LEAKAGE CURRENT @ V_{DRM}	BREAKOVER VOLTAGE	ON-STATE VOLTAGE @ I_T=1.0A	BREAKOVER CURRENT		HOLDING CURRENT		OFF-STATE CAPACITANCE
SYMBOL	V_{DRM}	I_{DRM}	V_{BO}	V_T	I_{BO}-	I_{BO}+	I_H-	I_H+	Co
UNITS	Volts	uA	Volts	Volts	mA	mA	mA	mA	pF
LIMIT	Max	Max	Max	Max	Min	Max	Min	Max	Typ
P064M	58	5	77	3.5	50	800	150	800	140
P072M	65	5	88	3.5	50	800	150	800	140
P090M	75	5	98	3.5	50	800	150	800	140
P110M	90	5	130	3.5	50	800	150	800	90
P130M	120	5	160	3.5	50	800	150	800	90
P150M	140	5	180	3.5	50	800	150	800	90
P180M	160	5	220	3.5	50	800	150	800	90
P230M	190	5	265	3.5	50	800	150	800	60
P260M	220	5	300	3.5	50	800	150	800	60
P310M	275	5	350	3.5	50	800	150	800	60
P350M	320	5	400	3.5	50	800	150	800	60

SYMBOL	PARAMETER
V_{DRM}	Stand-off voltage
I_{DRM}	Leakage current at stand-off voltage
V_{BR}	Breakdown voltage
I_{BR}	Breakdown current
V_{BO}	Breakover voltage
I_{BO}	Breakover current
I_H	Holding current Note:1
V_T	On state voltage
I_{PP}	Peak pulse current
C_O	Off state capacitance Note:2



NOTES: 1.$I_H > (V_L/R_L)$ if this criterion is not obeyed, the T_{SPD} tuiggers but does not return correctly to high-resistance state. The surge recovery time does not exceed 30ms.

2.Off-state capacitance measured at f=1.0MHz; $1.0V_{RMS}$ signal; $V_R=2V_{DC}$ bias.

FIG.1 -- OFF STATE CURRENT vs JUNCTION TEMPERATURE

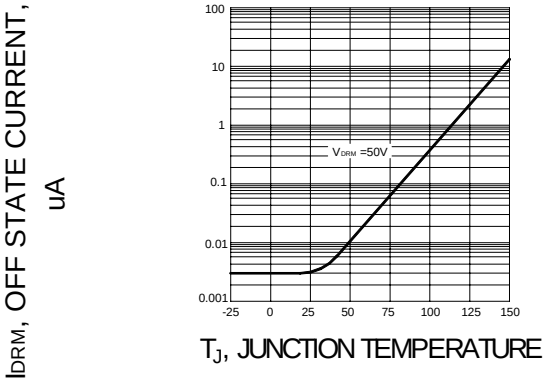


FIG.2-- RELATIVE VARIATION OF BREAKDOWN VOLTAGE vs JUNCTION TEMPERATURE

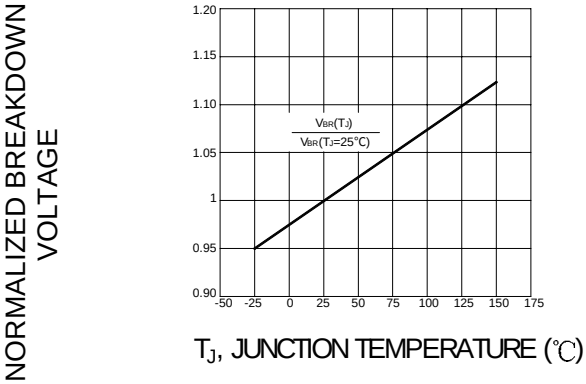


FIG.3 -- RELATIVE VARIATION OF BREAKOVER VOLTAGE vs JUNCTION TEMPERATURE

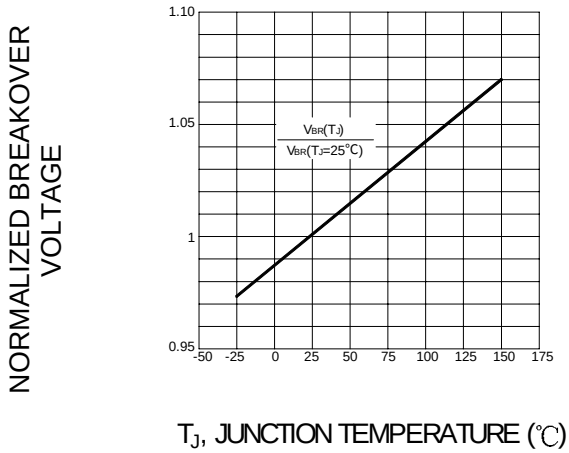


FIG.4 -- ON STATE CURRENT vs ON STATE VOLTAGE

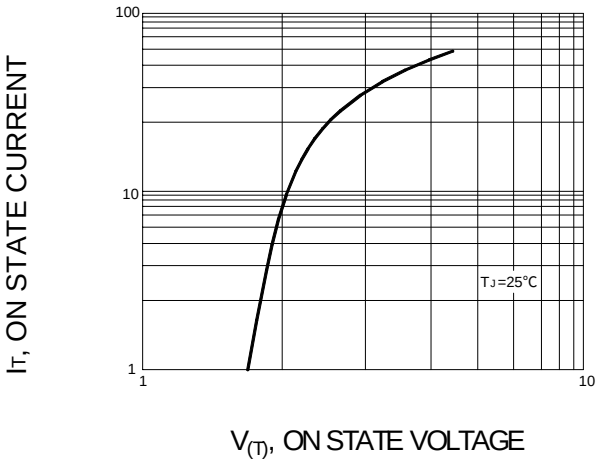


FIG.5 -- RELATIVE VARIATION OF HOLDING CURRENT vs JUNCTION TEMPERATURE

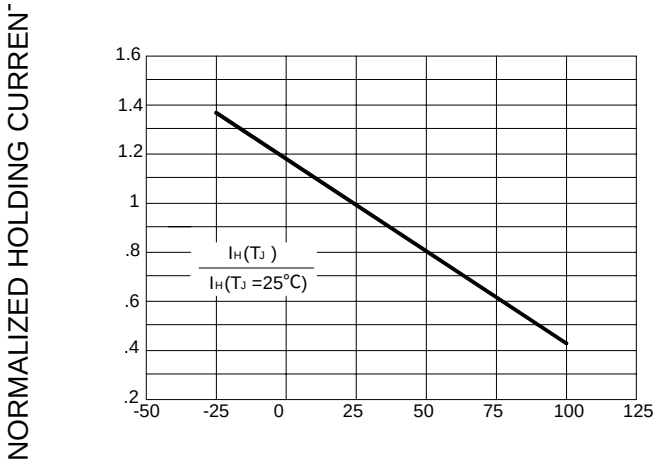
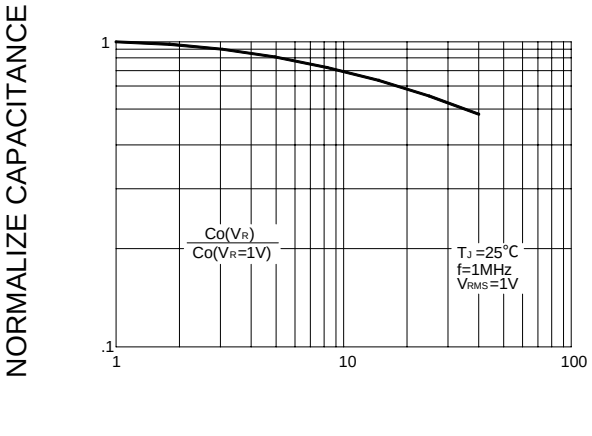
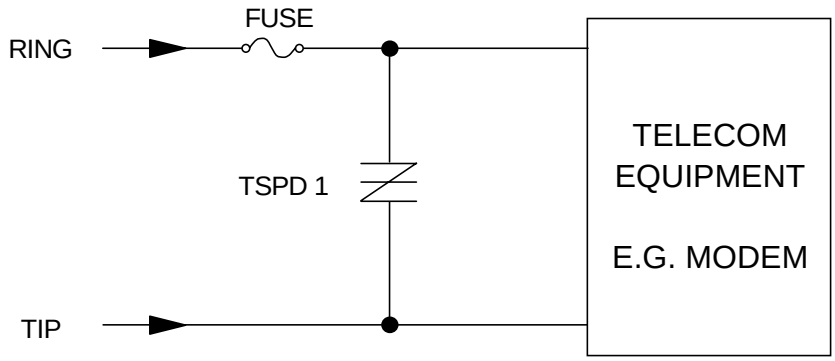
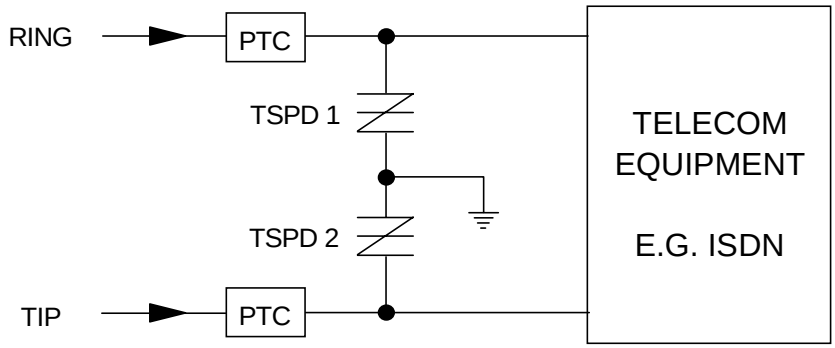
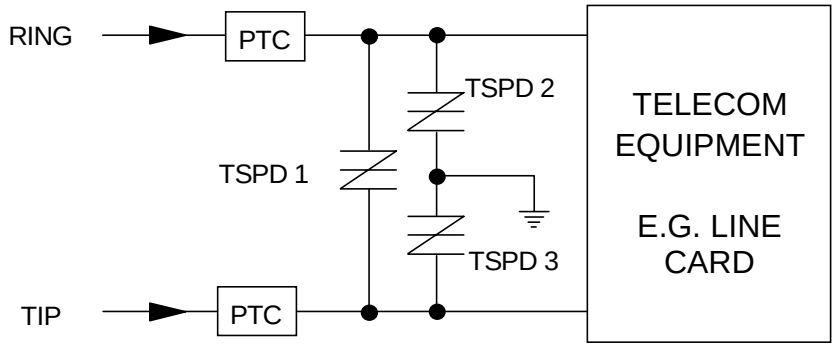


FIG.6 -- RELATIVE VARIATION OF JUNCTION CAPACITANCE vs REVERSE VOLTAGE BIAS









The PTC (Positive Temperature Coefficient) is an overcurrent protection device