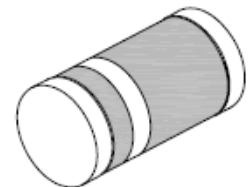


**400W Surface Mount Transient Voltage Suppressor**

**Features**

- Breakdown voltage from 6.8 to 170 volts
- Glass passivated junction
- Excellent clamping capability
- Low incremental surge resistance
- 400W peak pulse capability with a 10/1000us waveform, Repetition rate (duty cycle): 0.01%
- Fast response time: typically less than 1.0ps from 0V to VBR
- For devices with  $VBR \geq 10V$ ,  $I_D$  are typically less than 1.0uA
- High temperature soldering guaranteed 250°C/10 seconds at terminals
- RoHS Compliant



MELF (DO-213AB)



**Mechanical Data**

<b>Case:</b>	JEDEC DO-213AB (MELF) molded plastic body over passivated junction
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Solder plated, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Blue bands denotes the cathode which is positive with respect to the anode under normal TVS operation
<b>Mounting position:</b>	Any
<b>Weight:</b>	0.0046 Ounce, 0. 116 gram

**Maximum Ratings** ( $T_{Ambient}=25^{\circ}C$  unless noted otherwise)

Symbol	Description	Value	Unit	Conditions
<b>PPPM</b>	Peak Pulse Power Dissipation on 10/1000 us waveform	Minimum 400	W	Non-repetitive current pulse, per FIG.3 and derated above $TA=25^{\circ}C$ per FIG.2
<b>IPPM</b>	Peak Pulse current with a 10/1000 us waveform	See Table	A	
<b>IFSM</b>	Peak Forward Surge Current	40	A	8.3ms single half sine-wave superimposed on rated load, (JEDEC Method)
<b>T<sub>J</sub>,T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-55 to 150	$^{\circ}C$	

**Note:** Mounted on copper pads to each terminal of 0.31 in<sup>2</sup> (8.0 mm<sup>2</sup>) per Fig.5

# 400W Surface Mount Transient Voltage Suppressor

## TGL41-6.8 - TGL41-170CA

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Part NO.		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage @ Test Current.			Max. Clamping Voltage @ IPPM	Max. Peak Pulse Current	Max. Reverse Leakage Current @ $V_{WM}$
					$V_{BR}$		$I_T$ (mA)			
Uni-Polar	Bi-Polar	Uni	Bi	$V_{WM}$ (V)	Min.	Max.		$V_C$ (V)	IPPM (A)	$I_D$ ( $\mu$ A)
TGL416.8	TGL416.8C	-	-	5.50	6.12	7.48	10	10.8	37.0	1000
TGL416.8A	TGL416.8CA	-	-	5.80	6.45	7.14	10	10.5	38.1	1000
TGL41-7.5	TGL41-7.5C	-	-	6.05	6.75	8.25	10	11.7	34.2	500
TGL41-7.5A	TGL417.5CA	-	-	6.40	7.13	7.88	10	11.3	35.4	500
TGL41-8.2	TGL41-8.2C	-	-	6.63	7.38	9.02	10	12.5	32.0	200
TGL41-8.2A	TGL418.2CA	-	-	7.02	7.79	8.61	10	12.1	33.1	200
TGL41-9.1	TGL41-9.1C	-	-	7.37	8.19	10.0	1.0	13.8	29.0	50
TGL41-9.1A	TGL419.1CA	-	-	7.78	8.65	9.55	1.0	13.4	29.9	50
TGL41-10	TGL41-10C	-	-	8.10	9.00	11.0	1.0	15.0	26.7	10
TGL41-10A	TGL41-10CA	-	-	8.55	9.50	10.5	1.0	14.5	27.6	10
TGL41-11	TGL41-11C	-	-	8.92	9.90	12.1	1.0	16.2	24.7	5
TGL41-11A	TGL41-11CA	-	-	9.40	10.5	11.6	1.0	15.6	25.6	5
TGL41-12	TGL41-12C	-	-	9.72	10.8	13.2	1.0	17.3	23.1	5
TGL41-12A	TGL41-12CA	-	-	10.2	11.4	12.6	1.0	16.7	24.0	5
TGL41-13	TGL41-13C	-	-	10.5	11.7	14.3	1.0	19.0	21.1	5
TGL41-13A	TGL41-13CA	-	-	11.1	12.4	13.7	1.0	18.2	22.0	5
TGL41-15	TGL41-15C	-	-	12.1	13.5	16.5	1.0	22.0	18.2	5
TGL41-15A	TGL41-15CA	-	-	12.8	14.3	15.8	1.0	21.2	18.9	5
TGL41-16	TGL41-16C	-	-	12.9	14.4	17.6	1.0	23.5	17.0	5
TGL41-16A	TGL41-16CA	-	-	13.6	15.2	16.8	1.0	22.5	17.8	5
TGL41-18	TGL41-18C	-	-	14.5	16.2	19.8	1.0	26.5	15.1	5
TGL41-18A	TGL41-18CA	-	-	15.3	17.1	18.9	1.0	25.2	15.9	5
TGL41-20	TGL41-20C	-	-	16.2	18.0	22.0	1.0	29.1	13.7	5
TGL41-20A	TGL41-20CA	-	-	17.1	19.0	21.0	1.0	27.7	14.4	5
TGL41-22	TGL41-22C	-	-	17.8	19.8	24.2	1.0	31.9	12.5	5
TGL41-22A	TGL41-22CA	-	-	18.8	20.9	23.1	1.0	30.6	13.1	5
TGL41-24	TGL41-24C	-	-	19.4	21.6	26.4	1.0	34.7	11.5	5
TGL41-24A	TGL41-24CA	-	-	20.5	22.8	25.2	1.0	33.2	12.0	5
TGL41-27	TGL41-27C	-	-	21.8	24.3	29.7	1.0	39.1	10.2	5
TGL41-27A	TGL41-27CA	-	-	23.1	25.7	28.4	1.0	37.5	10.7	5

# 400W Surface Mount Transient Voltage Suppressor

## TGL41-6.8 - TGL41-170CA

TGL41-30	TGL41-30C	-	-	24.3	27.0	33.0	1.0	43.5	9.2	5
TGL41-30A	TGL41-30CA	-	-	25.6	28.5	31.5	1.0	41.4	9.7	5
TGL41-33	TGL41-33C	-	-	26.8	29.7	36.3	1.0	47.7	8.4	5
TGL41-33A	TGL41-33CA	-	-	28.2	31.4	34.7	1.0	45.7	8.8	5
TGL41-36	TGL41-36C	-	-	29.1	32.4	39.6	1.0	52.0	7.7	5
TGL41-36A	TGL41-36CA	-	-	30.8	34.2	37.8	1.0	49.9	8.0	5
TGL41-47	TGL41-47C	-	-	38.1	42.3	51.7	1.0	67.8	5.9	5
TGL41-47A	TGL41-47CA	-	-	40.2	44.7	49.4	1.0	64.8	6.2	5
TGL41-51	TGL41-51C	-	-	41.3	45.9	56.1	1.0	73.5	5.4	5
TGL41-51A	TGL41-51CA	-	-	43.6	48.5	53.6	1.0	70.1	5.7	5
TGL41-56	TGL41-56C	-	-	45.4	50.4	61.6	1.0	80.5	5.0	5
TGL41-56A	TGL41-56CA	-	-	47.8	53.2	58.8	1.0	77.0	5.2	5
TGL41-62	TGL41-62C	-	-	50.2	55.8	68.2	1.0	89.0	4.5	5
TGL41-62A	TGL41-62CA	-	-	53.0	58.9	65.1	1.0	85.0	4.7	5
TGL41-68	TGL41-68C	-	-	55.1	61.2	74.8	1.0	98.0	4.1	5
TGL41-68A	TGL41-68CA	-	-	58.1	64.6	71.4	1.0	92.0	4.3	5
TGL41-75	TGL41-75C	-	-	60.7	67.5	82.5	1.0	108	3.7	5
TGL41-75A	TGL41-75CA	-	-	64.1	71.3	78.8	1.0	103	3.9	5
TGL41-82	TGL41-82C	-	-	66.4	73.8	90.2	1.0	118	3.4	5
TGL41-82A	TGL41-82CA	-	-	70.1	77.9	86.1	1.0	113	3.5	5
TGL41-91	TGL41-91C	-	-	73.7	81.9	100	1.0	131	3.1	5
TGL41-91A	TGL41-91CA	-	-	77.8	86.5	95.5	1.0	125	3.2	5
TGL41-100	TGL41-100C	-	-	81.0	90.0	110	1.0	144	1.39	5
TGL41-100A	TGL41-100CA	-	-	85.5	95.0	105	1.0	137	1.46	5
TGL41-110	TGL41-110C	-	-	89.2	99.0	121	1.0	158	1.27	5
TGL41-110A	TGL41-110CA	-	-	94.0	105	116	1.0	152	1.32	5
TGL41-120	TGL41-120C	-	-	97.2	108	132	1.0	173	1.16	5
TGL41-120A	TGL41-120CA	-	-	102	114	126	1.0	165	1.21	5
TGL41-130	TGL41-130C	-	-	105	117	143	1.0	187	1.07	5
TGL41-130A	TGL41-130CA	-	-	111	124	137	1.0	179	1.12	5
TGL41-150	TGL41-150C	-	-	121	135	165	1.0	215	0.93	5
TGL41-150A	TGL41-150CA	-	-	128	143	158	1.0	207	0.97	5
TGL41-160	TGL41-160C	-	-	130	144	176	1.0	230	0.87	5
TGL41-160A	TGL41-160CA	-	-	136	152	168	1.0	219	0.91	5
TGL41-170	TGL41-170C	-	-	138	153	187	1.0	244	0.82	5
TGL41-170A	TGL41-170CA	-	-	145	162	179	1.0	234	0.85	5

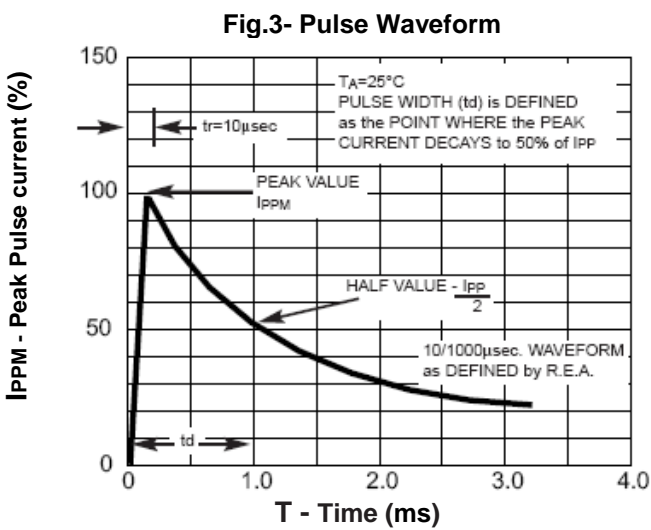
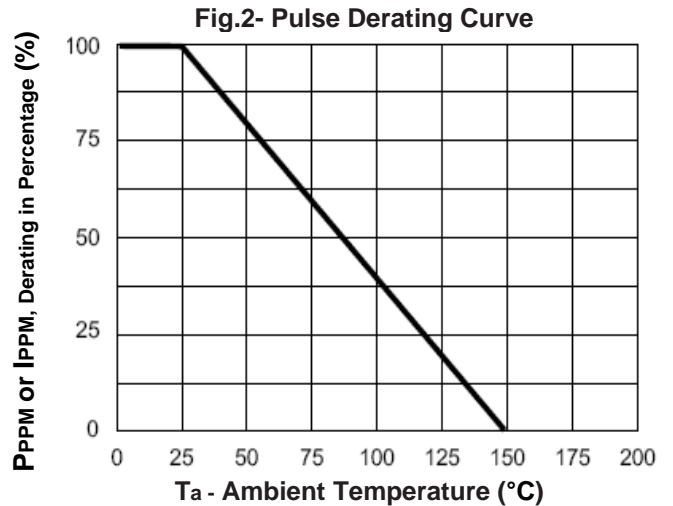
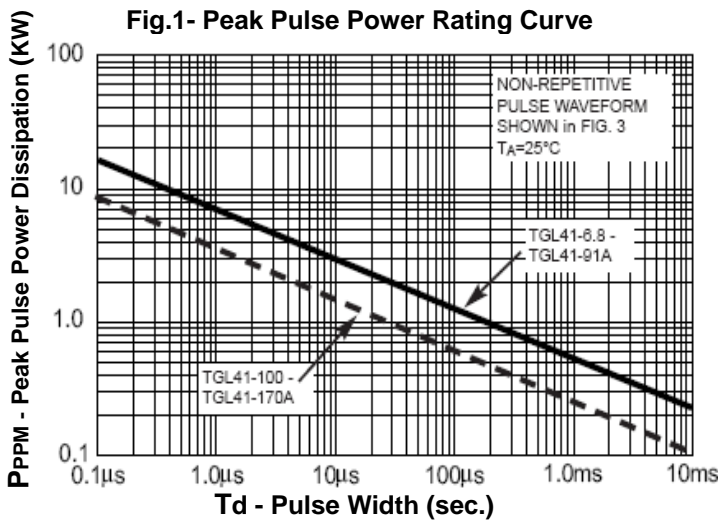
# 400W Surface Mount Transient Voltage Suppressor

## TGL41-6.8 - TGL41-170CA

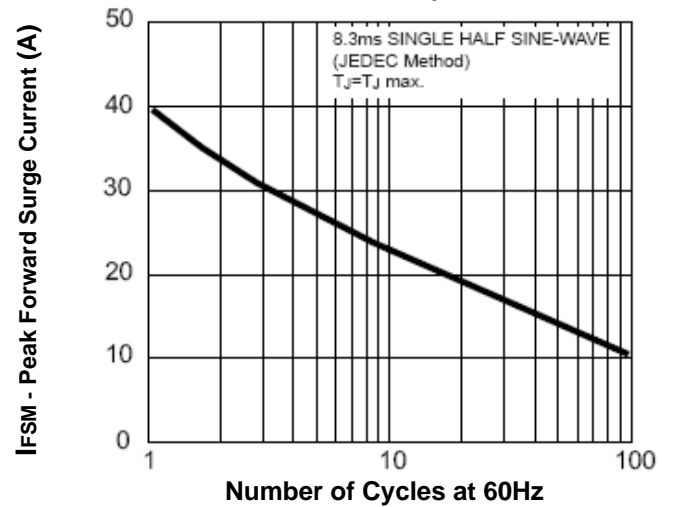
**NOTES:**

- (1)  $V_{(BR)}$  measured after  $I_T$  applied for 300 $\mu$ s square wave pulse or equivalent
- (2) Surge current waveform per Figure 3 and derate per Fig.2
- (3) All terms and symbols are consistent with ANSI/IEEE C62.35

### Typical Characteristics Curves

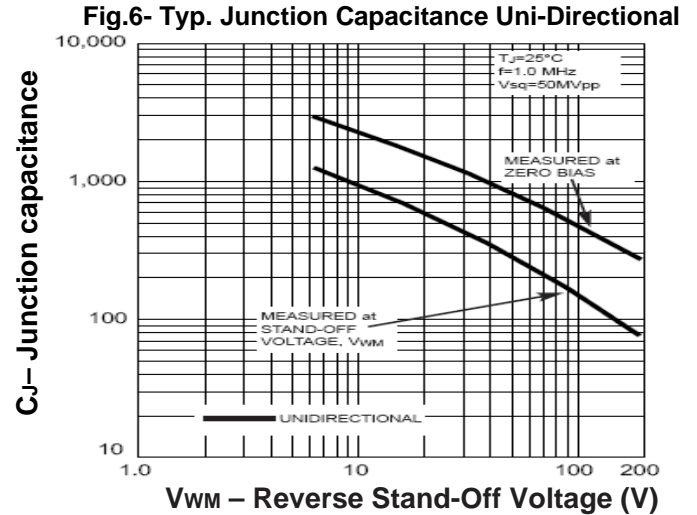
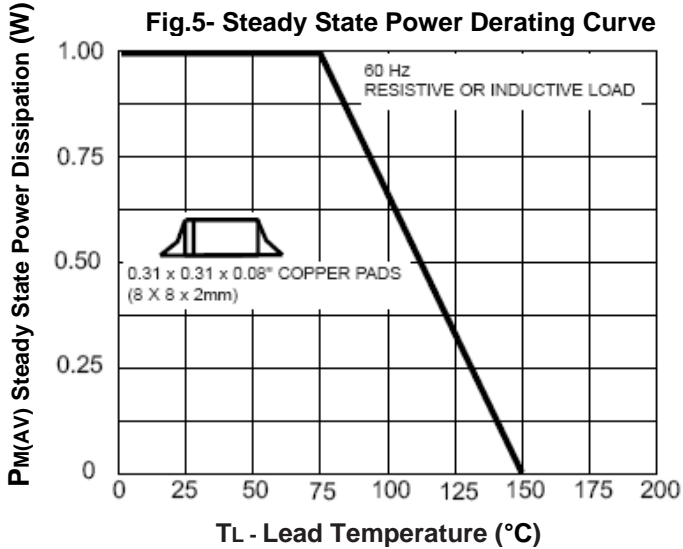


**Fig.4-Max. Non-Repetitive Forward Surge Current Uni-directional only**

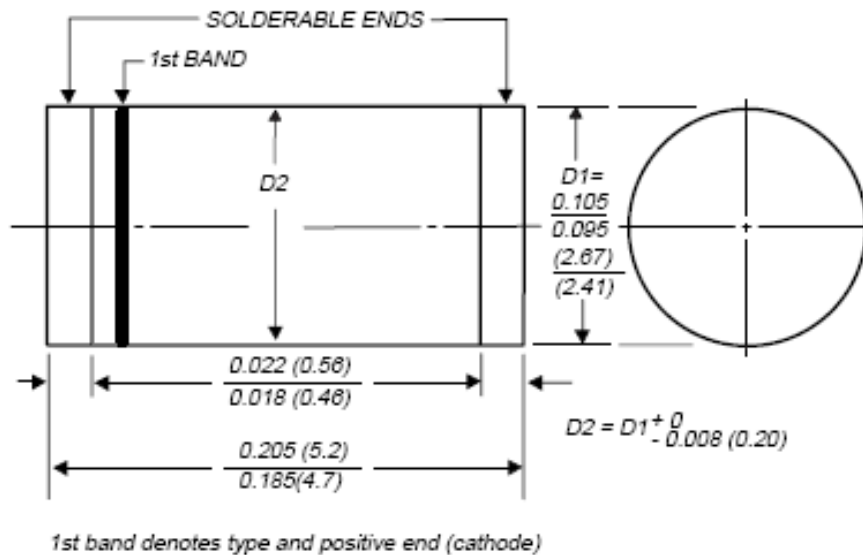


# 400W Surface Mount Transient Voltage Suppressor

## TGL41-6.8 - TGL41-170CA



### Dimensions in inches (mm)



### MELF (DO-213AB)

# 400W Surface Mount Transient Voltage Suppressor

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TGL41-6.8 - TGL41-170CA

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