

# TGL34- 6.8 ~ TGL34-200CA

# SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

$V_{BR(Nom)}$  : 6.8 to 200 V

$P_{PPM}$  : 150 W

## FEATURES :

- \* 150 W peak pulse power capability with a 10/1000 $\mu$ s waveform
- \* Excellent clamping capability
- \* Fast response time
- \* Pb / RoHS Free

## MECHANICAL DATA :

- \* Plastic Case Mini MELF/ SOD-80
- \* Terminals: plated terminals solderable per MIL-STD-750
- \* Polarity : Color band denotes cathode end except Bipolar.
- \* Mounting position : Any
- \* Weight : 0.04 gram

## DEVICES FOR BIPOLAR APPLICATIONS

For Bi-directional use C or CA Suffix  
Electrical characteristics apply in both directions

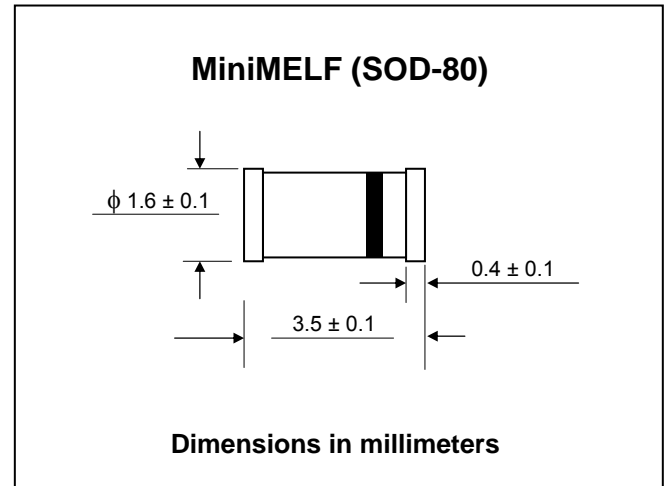
## MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Units
Peak Pulse Power Dissipation(10/100 $\mu$ s waveform) <sup>(1)</sup>	$P_{PPM}$	150	W
Steady State Power Dissipation <sup>(2)</sup> $T_a = 75$ °C	$P_{M(AV)}$	1.0	W
Peak Forward Surge Current, 60 Hz half sine-wave <sup>(3)</sup>	$I_{FSM}$	20	A
Maximum Instantaneous Forward Voltage <sup>(3)</sup> at $I_F = 10$ A	$V_F$	3.5	V
Thermal resistance, junction to Ambient Air	$R_{\theta JA}$	75	K/W
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	- 50 to + 150	°C

### Notes :

- (1) Non-repetitive pulse see curve  $I_{PP} = f(t) / P_{PP} = f(t)$   
 (2) Mounted on P.C. board with 25 mm<sup>2</sup> copper pads at each terminal.  
 (3) Unidirectional diodes only



## ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type No.	Breakdown Voltage @ $I_T$			Working Peak Reverse Voltage $V_{WM}$ (V)	Maximum Reverse Leakage @ $V_{WM}$ $I_R$ ( $\mu$ A)	Maximum Clamping Voltage @ $I_{PPM}$ $V_C$ (V)	Maximum Peak Pulse Surge Current $I_{PPM}$ (A)
	$V_{BR}$ (V)		$I_T$ (mA)				
	Min.	Max.					
TGL34-6.8	6.12	7.48	10	5.5	1000	10.8	13.9
TGL34-6.8A	6.45	7.14	10	5.8	1000	10.5	14.3
TGL34-7.5	6.75	8.25	10	6.0	500	11.7	12.8
TGL34-7.5A	7.13	7.88	10	6.4	500	11.3	13.3
TGL34-8.2	7.38	9.02	10	6.6	200	12.5	12.0
TGL34-8.2A	7.79	8.61	10	7.0	200	12.1	12.4
TGL34-9.1	8.19	10.0	1.0	7.3	50	13.8	10.9
TGL34-9.1A	8.65	9.55	1.0	7.7	50	13.4	11.2
TGL34-10	9.0	11.0	1.0	8.1	10	15.0	10.0
TGL34-10A	9.5	10.5	1.0	8.5	10	14.5	10.3
TGL34-11	9.9	12.1	1.0	8.9	5	16.2	9.3
TGL34-11A	10.5	11.6	1.0	9.4	5	15.6	9.6
TGL34-12	10.8	13.2	1.0	9.7	5	17.3	8.7
TGL34-12A	11.4	12.6	1.0	10.2	5	16.7	9.0
TGL34-13	11.7	14.3	1.0	10.5	5	19.0	7.9
TGL34-13A	12.4	13.7	1.0	11.1	5	18.2	8.2
TGL34-15	13.5	16.5	1.0	12.1	5	22.0	6.8
TGL34-15A	14.3	15.8	1.0	12.8	5	21.2	7.1
TGL34-16	14.4	17.6	1.0	12.9	5	23.5	6.4
TGL34-16A	15.2	16.8	1.0	13.6	5	22.5	6.7
TGL34-18	16.2	19.8	1.0	14.5	5	26.5	5.7
TGL34-18A	17.1	18.9	1.0	15.3	5	25.2	6.0
TGL34-20	18.0	22.0	1.0	16.2	5	29.1	5.2
TGL34-20A	19.0	21.0	1.0	17.1	5	27.7	5.4
TGL34-22	19.8	24.2	1.0	17.8	5	31.9	4.7
TGL34-22A	20.9	23.1	1.0	18.8	5	30.6	4.9
TGL34-24	21.6	26.4	1.0	19.4	5	34.7	4.3
TGL34-24A	22.8	25.2	1.0	20.5	5	33.2	4.5
TGL34-27	24.3	29.7	1.0	21.8	5	39.1	3.8
TGL34-27A	25.7	28.4	1.0	23.1	5	37.5	4.0
TGL34-30	27.0	30.0	1.0	24.3	5	43.5	3.4
TGL34-30A	28.5	31.5	1.0	25.6	5	41.4	3.6
TGL34-33	29.7	36.3	1.0	26.8	5	47.7	3.1
TGL34-33A	31.4	34.7	1.0	28.2	5	45.7	3.3
TGL34-36	32.4	39.6	1.0	29.1	5	52.0	2.9
TGL34-36A	34.2	37.8	1.0	30.8	5	49.9	3.0
TGL34-39	35.1	42.9	1.0	31.6	5	56.4	2.7
TGL34-39A	37.1	41.0	1.0	33.3	5	53.9	2.8

Note :

(1) For bidirectional use C or CA suffix.

## ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

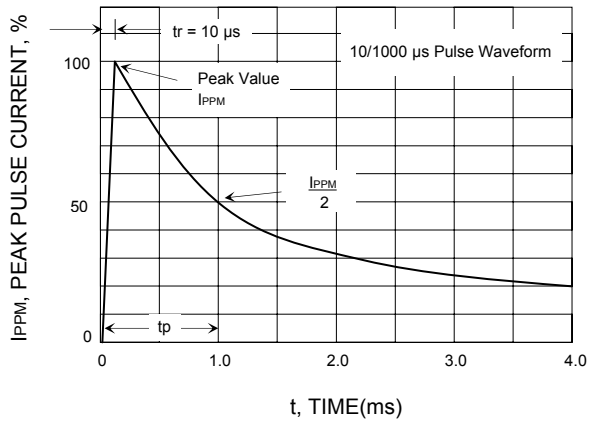
Type No.	Breakdown Voltage @ $I_T$			Working Peak Reverse Voltage $V_{WM}$ (V)	Maximum Reverse Leakage @ $V_{WM}$ $I_R$ ( $\mu$ A)	Maximum Clamping Voltage @ IPPM $V_C$ (V)	Maximum Peak Pulse Surge Current $I_{PPM}$ (A)
	$V_{BR}$ (V)		$I_T$ (mA)				
	Min.	Max.					
TGL34-43	38.7	47.3	1.0	34.8	5	61.9	2.4
TGL34-43A	40.9	45.2	1.0	36.8	5	59.3	2.5
TGL34-47	42.3	51.7	1.0	38.1	5	67.8	2.2
TGL34-47A	44.7	49.4	1.0	40.2	5	64.8	2.3
TGL34-51	45.9	56.1	1.0	41.3	5	73.5	2.0
TGL34-51A	48.5	53.6	1.0	43.6	5	70.1	2.1
TGL34-56	50.4	61.6	1.0	45.4	5	81	1.9
TGL34-564A	53.2	58.8	1.0	47.8	5	77	1.9
TGL34-62	55.8	68.8	1.0	50.2	5	89	1.7
TGL34-62A	58.9	65.1	1.0	53.0	5	85	1.8
TGL34-68	61.2	74.8	1.0	55.1	5	98	1.5
TGL34-68A	64.6	71.4	1.0	58.1	5	92	1.6
TGL34-75	67.5	82.5	1.0	60.7	5	108	1.4
TGL34-75A	71.3	78.8	1.0	64.1	5	103	1.5
TGL34-82	73.8	90.2	1.0	66.4	5	118	1.3
TGL34-82A	77.9	86.1	1.0	70.1	5	113	1.3
TGL34-91	81.9	100	1.0	73.7	5	131	1.1
TGL34-91A	86.5	95.5	1.0	77.8	5	125	1.2
TGL34-100	90	110	1.0	81.0	5	144	1.0
TGL34-100A	95	105	1.0	85.5	5	137	1.1
TGL34-110	99	121	1.0	89.2	5	158	0.9
TGL34-110A	105	116	1.0	94.0	5	152	1.0
TGL34-120	108	132	1.0	97.2	5	173	0.9
TGL34-120A	114	126	1.0	102	5	165	0.9
TGL34-130	117	143	1.0	105	5	187	0.8
TGL34-130A	124	137	1.0	111	5	179	0.8
TGL34-150	135	165	1.0	121	5	215	0.7
TGL34-150A	143	158	1.0	128	5	207	0.7
TGL34-160	144	176	1.0	130	5	230	0.7
TGL34-160A	152	168	1.0	136	5	219	0.7
TGL34-170	153	187	1.0	138	5	244	0.6
TGL34-170A	162	179	1.0	145	5	234	0.6
TGL34-180	162	198	1.0	146	5	258	0.6
TGL34-180A	171	189	1.0	154	5	246	0.6
TGL34-200	180	220	1.0	162	5	287	0.5
TGL34-200A	190	210	1.0	171	5	274	0.5

Note :

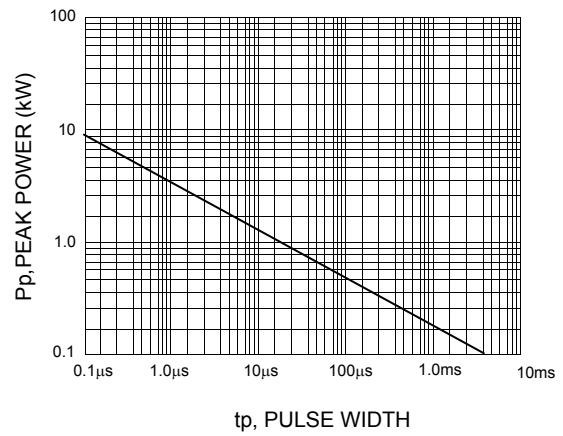
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**RATING AND CHARACTERISTIC CURVES ( TGL34- 6.8 ~ TGL34-200CA )**

**FIG.1 - PULSE WAVEFORM**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - PULSE DERATING CURVE**

