

Surface mount diode

## Bidirectional Transient Voltage Suppressor diodes

TGL 41-520C

**Pulse Power Dissipation: 400 W**

**Stand-off voltage: 423 V**

### Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0
- For bidirectional types (suffix "C" or "CA") electrical characteristics apply in both directions
- The standard tolerance of the breakdown voltage for each type is  $\pm 10\%$ . Suffix "A" denotes a tolerance of  $\pm 5\%$  for the breakdown voltage.

### Mechanical Data

- Plastic case: Melf / DO-213AB
- Weight approx.: 0,12 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 5000 pieces per reel

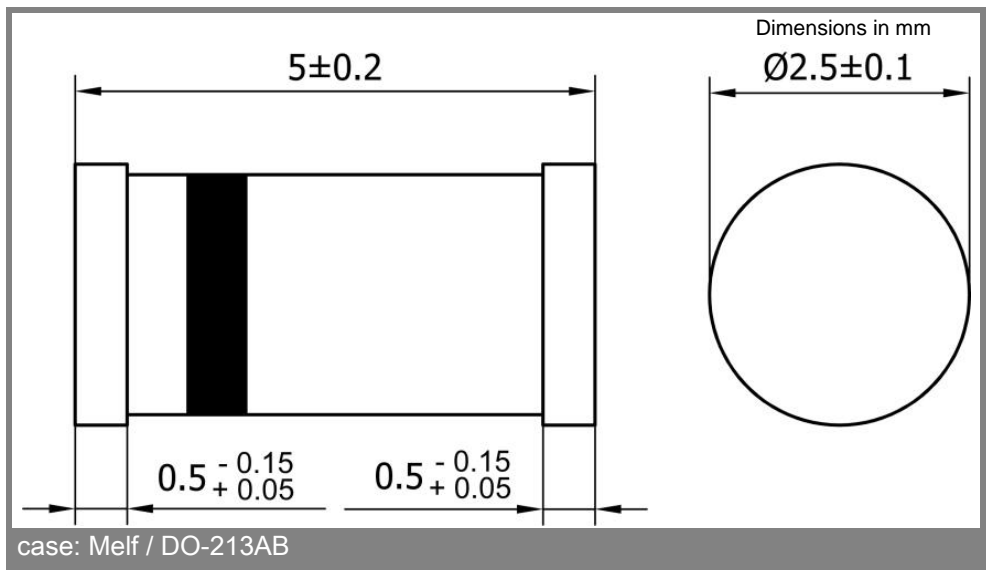
1) Non-repetitive current pulse see curve  $I_{PPM} = f(t_r)$

2) Mounted on P.C. board with 25 mm<sup>2</sup> copper pads at each terminal

3) Unidirectional diodes only

Absolute Maximum Ratings		$T_A = 25\text{ }^\circ\text{C}$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$P_{PPM}$	Peak pulse power dissipation (10/1000 $\mu\text{s}$ - waveform), <sup>1)</sup> $T_a = 25\text{ }^\circ\text{C}$	400	W
$P_{M(AV)}$	Steady state power dissipation <sup>2)</sup> , $T_a = 25\text{ }^\circ\text{C}$	1	W
$I_{FSM}$	Peak forward surge current, 60 Hz half sine-wave, <sup>3)</sup> $T_a = 25\text{ }^\circ\text{C}$	40	A
$R_{thA}$	Max. thermal resistance junction to ambient <sup>2)</sup>	45	K/W
$R_{thT}$	Max. thermal resistance junction to terminal	10	K/W
$T_j$	Operating junction temperature	- 50 ... + 150	$^\circ\text{C}$
$T_s$	Storage temperature	- 50 ... + 150	$^\circ\text{C}$
$V_f$	Max. instant. forw. voltage $I_f = 25\text{ A}$ <sup>3)</sup>	-	V
		-	V

Type	Stand-off voltage@ $I_D$		Breakdown voltage@ $I_T$		Test current $I_T$ mA	Max. clamping voltage@ $I_{PPM}$	
	$V_{WM}$ V	$I_D$ $\mu\text{A}$	min. V	max. V		$V_C$ V	$I_{PPM}$ A
TGL 41-520C	423	5	470	570	1	745	0,54



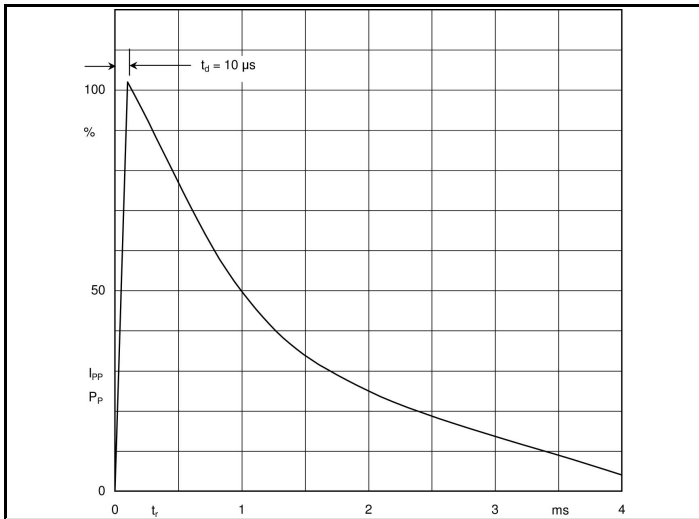


Fig. 1 10/1000  $\mu s$  - pulse waveform

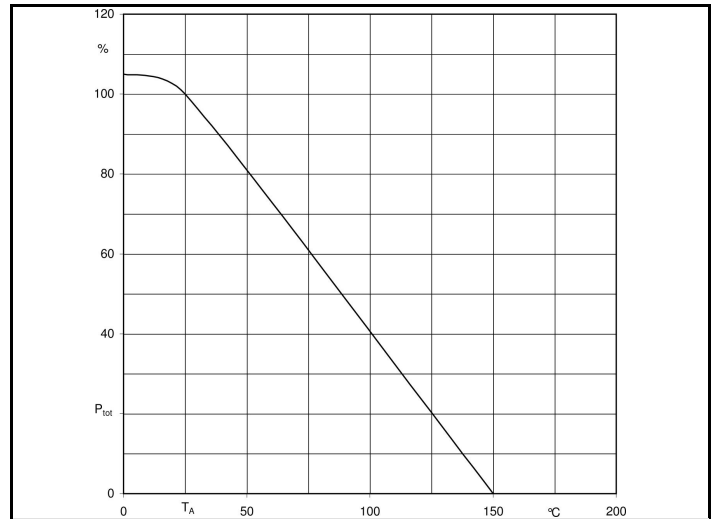


Fig. 2 Rated power dissipation vs. amb. temp. <sup>2)</sup>

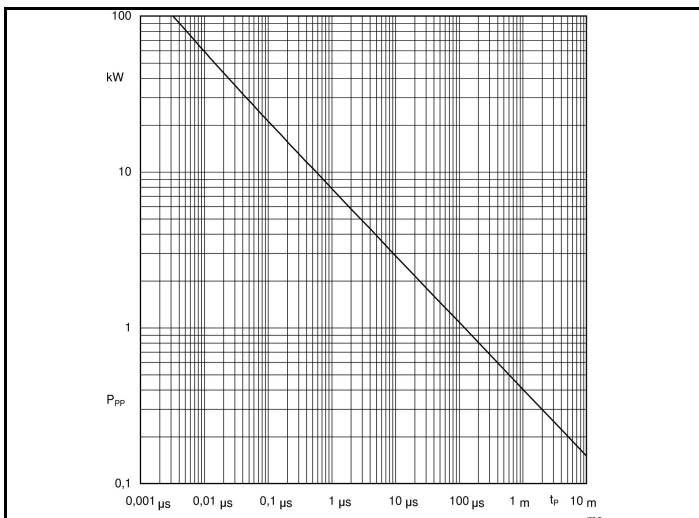


Fig. 3 Peak power versus pulse duration