

# Design Kit

## WE-TVSP Power TVS Diodes Low Power



400 W / DO-214AC (SMAJ)	<b>824 500 500</b>	<b>824 500 600</b>	<b>824 500 121</b>	<b>824 520 500</b>	<b>824 520 600</b>	<b>824 520 121</b>
	$V_{DC}$ : 5 V	$V_{DC}$ : 6 V	$V_{DC}$ : 12 V	$V_{DC}$ : 5 V	$V_{DC}$ : 6 V	$V_{DC}$ : 12 V
	$I_{PEAK}$ : 43.5 A	$I_{PEAK}$ : 38.8 A	$I_{PEAK}$ : 20.1 A	$I_{PEAK}$ : 65.3 A	$I_{PEAK}$ : 58.3 A	$I_{PEAK}$ : 30.2 A
	$V_{CLAMP}$ : 9.2 V	$V_{CLAMP}$ : 10.3 V	$V_{CLAMP}$ : 19.9 V	$V_{CLAMP}$ : 9.2 V	$V_{CLAMP}$ : 10.3 V	$V_{CLAMP}$ : 19.9 V
	<b>824 500 241</b>	<b>824 500 261</b>	<b>824 500 301</b>	<b>824 520 241</b>	<b>824 520 261</b>	<b>824 520 301</b>
	$V_{DC}$ : 24 V	$V_{DC}$ : 26 V	$V_{DC}$ : 30 V	$V_{DC}$ : 24 V	$V_{DC}$ : 26 V	$V_{DC}$ : 30 V
	$I_{PEAK}$ : 10.3 A	$I_{PEAK}$ : 9.5 A	$I_{PEAK}$ : 8.3 A	$I_{PEAK}$ : 15.5 A	$I_{PEAK}$ : 14.3 A	$I_{PEAK}$ : 12.4 A
	$V_{CLAMP}$ : 38.9 V	$V_{CLAMP}$ : 42.1 V	$V_{CLAMP}$ : 48.4 V	$V_{CLAMP}$ : 38.9 V	$V_{CLAMP}$ : 42.1 V	$V_{CLAMP}$ : 48.4 V
	<b>824 500 331</b>	<b>824 500 361</b>	<b>824 500 481</b>	<b>824 520 331</b>	<b>824 520 361</b>	<b>824 520 481</b>
	$V_{DC}$ : 33 V	$V_{DC}$ : 36 V	$V_{DC}$ : 48 V	$V_{DC}$ : 33 V	$V_{DC}$ : 36 V	$V_{DC}$ : 48 V
	$I_{PEAK}$ : 7.5 A	$I_{PEAK}$ : 6.9 A	$I_{PEAK}$ : 5.2 A	$I_{PEAK}$ : 11.3 A	$I_{PEAK}$ : 10.4 A	$I_{PEAK}$ : 7.8 A
	$V_{CLAMP}$ : 53.3 V	$V_{CLAMP}$ : 58.1 V	$V_{CLAMP}$ : 77.4 V	$V_{CLAMP}$ : 53.3 V	$V_{CLAMP}$ : 58.1 V	$V_{CLAMP}$ : 77.4 V
600 W / DO-214AA (SMBJ)	<b>824 501 500</b>	<b>824 501 600</b>	<b>824 501 121</b>	<b>824 521 500</b>	<b>824 521 600</b>	<b>824 521 121</b>
	$V_{DC}$ : 5 V	$V_{DC}$ : 6 V	$V_{DC}$ : 12 V	$V_{DC}$ : 5 V	$V_{DC}$ : 6 V	$V_{DC}$ : 12 V
	$I_{PEAK}$ : 43.5 A	$I_{PEAK}$ : 38.8 A	$I_{PEAK}$ : 20.1 A	$I_{PEAK}$ : 65.3 A	$I_{PEAK}$ : 58.3 A	$I_{PEAK}$ : 30.2 A
	$V_{CLAMP}$ : 9.2 V	$V_{CLAMP}$ : 10.3 V	$V_{CLAMP}$ : 19.9 V	$V_{CLAMP}$ : 9.2 V	$V_{CLAMP}$ : 10.3 V	$V_{CLAMP}$ : 19.9 V
	<b>824 501 241</b>	<b>824 501 261</b>	<b>824 501 301</b>	<b>824 521 241</b>	<b>824 521 261</b>	<b>824 521 301</b>
	$V_{DC}$ : 24 V	$V_{DC}$ : 26 V	$V_{DC}$ : 30 V	$V_{DC}$ : 24 V	$V_{DC}$ : 26 V	$V_{DC}$ : 30 V
	$I_{PEAK}$ : 10.3 A	$I_{PEAK}$ : 9.5 A	$I_{PEAK}$ : 8.3 A	$I_{PEAK}$ : 15.5 A	$I_{PEAK}$ : 14.3 A	$I_{PEAK}$ : 12.4 A
	$V_{CLAMP}$ : 38.9 V	$V_{CLAMP}$ : 42.1 V	$V_{CLAMP}$ : 48.4 V	$V_{CLAMP}$ : 38.9 V	$V_{CLAMP}$ : 42.1 V	$V_{CLAMP}$ : 48.4 V
	<b>824 501 331</b>	<b>824 501 361</b>	<b>824 501 481</b>	<b>824 521 331</b>	<b>824 521 361</b>	<b>824 521 481</b>
	$V_{DC}$ : 33 V	$V_{DC}$ : 36 V	$V_{DC}$ : 48 V	$V_{DC}$ : 33 V	$V_{DC}$ : 36 V	$V_{DC}$ : 48 V
	$I_{PEAK}$ : 7.5 A	$I_{PEAK}$ : 6.9 A	$I_{PEAK}$ : 5.2 A	$I_{PEAK}$ : 11.3 A	$I_{PEAK}$ : 10.4 A	$I_{PEAK}$ : 7.8 A
	$V_{CLAMP}$ : 53.3 V	$V_{CLAMP}$ : 58.1 V	$V_{CLAMP}$ : 77.4 V	$V_{CLAMP}$ : 53.3 V	$V_{CLAMP}$ : 58.1 V	$V_{CLAMP}$ : 77.4 V

**Important information:** Würth Elektronik's design kits contain reference components. These components correspond with the current product development status on the day of supply. Exchange of the reference components to components with up-to-date product development status is not carried out automatically. No liability is taken for the use of these reference components. Therefore, please request new samples prior to releases for series production and product release.

Please check datasheets on [www.we-online.com](http://www.we-online.com) for specifications.  
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### Characteristics

MSL Level 1 per J-STD-020  
 Classification of the plastic case: UL 94 V-0  
 Safety certification UL 497B, E478010  
 Identical design:  
 DO-214AC = SMAJ  
 DO-214AA = SMBJ  
 DO-214AB = SMCJ/SMDJ

### Notes

@ 10/1000µs waveform  
 $I_{PEAK}$   
 $P_{DISS}$   
 $V_{CLAMP}$  @  $I_{PEAK}$

Unidirectional  
 Bidirectional