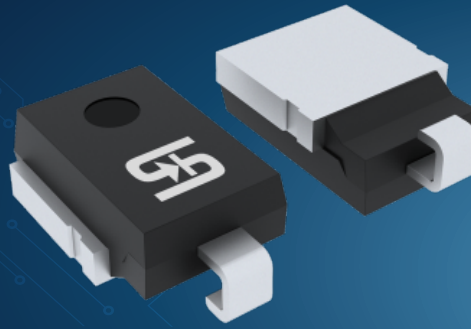


TLD5S/6S/8S Series

3.6/4.6/6.6KW, 10V - 43V
Load Dump TVS



Taiwan Semiconductor officially introduces its 3600/4600/6600 watts High Power Surge Capability Uni-Directional TVS in DO-218AB with reliable thermal performance up to $T_{JMAX}=175^{\circ}C$. TSC's TLD5S/6S/8S series offer total 57 new Part Numbers with working stand-off voltages from 10V to 43V, excellent clamping capability from 17V to 69.4V. The whole series are AEC-Q101 qualified.

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^{\circ}C$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE		UNIT
Non-repetitive peak impulse power dissipation with 10/1000 μ s waveform	P_{PPM}	TLD5S	3600	W
		TLD6S	4600	
		TLD8S	6600	
Non-repetitive peak impulse power dissipation with 10/10000 μ s waveform	P_{PPM}	TLD5S	2800	W
		TLD6S	3600	
		TLD8S	5200	
Steady state power dissipation	P_D	TLD5S	5	W
		TLD6S	6	
		TLD8S	8	
Forward Voltage at $I_F=100$ A	$V_{F,MAX}$	TLD5S	2	V
		TLD6S	1.9	
		TLD8S	1.8	
Peak forward surge current, 8.3 ms single half sine-wave	I_{FSM}	TLD5S	500	A
		TLD6S	600	
		TLD8S	700	
Junction temperature	T_J	-55 to +175		$^{\circ}C$
Storage temperature	T_{STG}	-55 to +175		$^{\circ}C$

Features

- AEC-Q101 qualified
- Junction passivation optimized design technology
- $T_J=175^{\circ}C$ capability suitable for high reliability and automotive requirement
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21
- Meets ISO7637-2 and ISO16750-2 surge specifications (varied by test conditions)

Application

- Transient Surge Protection.
- Automotive Load Dump Surge Protection.

