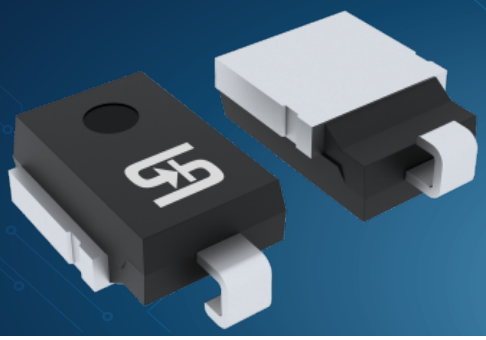
TLD5S/6S/8S Series

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

TAIWAN SEMICONDUCTOR



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°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°C unless otherwise noted)				
PARAMETER	**SYMBOL**	**VALUE**		**UNIT**
Non-repetitive peak impulse power dissipation with 10/1000μs waveform	P_{PPM}	TLD5S	3600	W
		TLD6S	4600	
		TLD8S	6600	
Non-repetitive peak impulse power dissipation with 10/10000μs 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		°C
Storage temperature	T_{STG}	-55 to +175		°C

Features

- AEC-Q101 qualified
- Junction passivation optimized design technology
- T_J =175 °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.

Comparable Alternative

Taiwan Semiconductor	Package	V_{WM} (V)	Vishay
TLD5S10AH ~ TLD5S43AH	DO-218AB	10 ~ 43	SM5S10A(T) ~ SM5S43A(T)
TLD6S10AH ~ TLD6S43AH	DO-218AB	10 ~ 43	SM6S10A(T) ~ SM6S43A(T)
TLD8S10AH ~ TLD8S43AH	DO-218AB	10 ~ 43	SM8S10A(T) ~ SM8S43A(T)

Package Information

Outline (Package)	Reel (pcs)	Reel Size (inch)	Inner Box (pcs)	Carton (pcs)	Carton Size (mm)	Packing Code
DO-218AB	750	13” plastic	750	3,750	360x355x245	MA

Samples of TLD5S series can be ordered on Product Detail page:
www.taiwansemi.com/en/products/details/TLD5S10AH (example)

Samples of TLD6S series can be ordered on Product Detail page:
www.taiwansemi.com/en/products/details/TLD6S10AH (example)

Samples of TLD8S series can be ordered on Product Detail page:
www.taiwansemi.com/en/products/details/TLD8S10AH (example)

Datasheets of TLD5S/6S/8S series can be downloaded via below links:
TLD5S10AH- TLD5S43AH
TLD6S10AH- TLD6S43AH
TLD8S10AH- TLD8S43AH

For pricing and more information, please contact TSC sales or authorized distributors.