

## Trench MOS Barrier Schottky Rectifier

**DO-201AD**  
**TSA16L300**



Cathode  Anode 

### Features

- Advanced trench technology
- Low forward voltage drop
- Low power losses
- High efficiency operation
- Lead Free Finish, RoHS Compliant

### Applications

- DC/DC Converters
- AC/DC Adaptors
- Switching Power Supplies
- Freewheeling Diodes

### Maximum ratings and electrical characteristics (T<sub>J</sub> = 25°C unless otherwise noted)

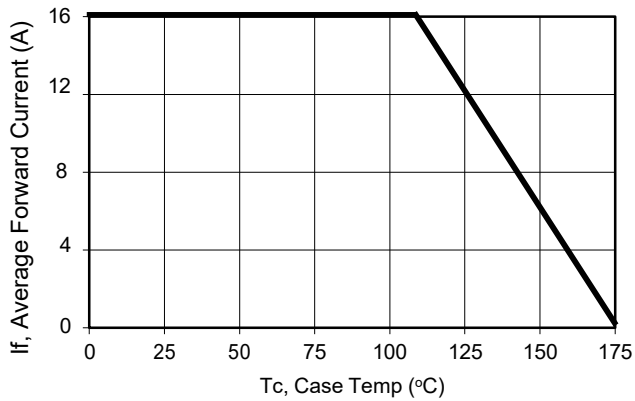
Parameter		Symbol	Limit		Unit
Maximum repetitive peak reverse voltage		VRRM	300		V
Maximum average forward rectified current		IF(AV)	16		A
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode		IFSM	250		A
Operating junction and storage temperature range		TJ, TSTG	-50 to +175		°C
Typical thermal resistance per leg	DO-201AD	RθJC	22		°C/W
Instantaneous forward voltage per diode			TYP.	MAX.	V
	IF=2A	TJ=25°C	0.72	0.77	
	IF=2A	TJ=125°C	0.67	-	
	IF=16A	TJ=25°C	0.65	0.70	
	IF=16A	TJ=125°C	0.60	-	
Instantaneous reverse current per diode at rated reverse voltage	TJ=25°C	IR(2)	1	10	uA
	TJ=125°C		-	5	mA

Notes:

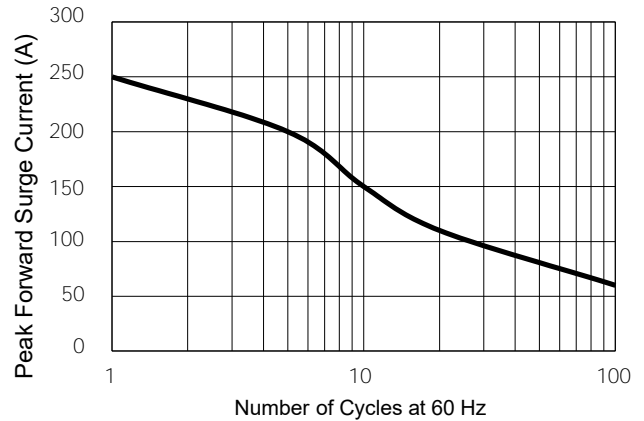
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≦ 40 ms

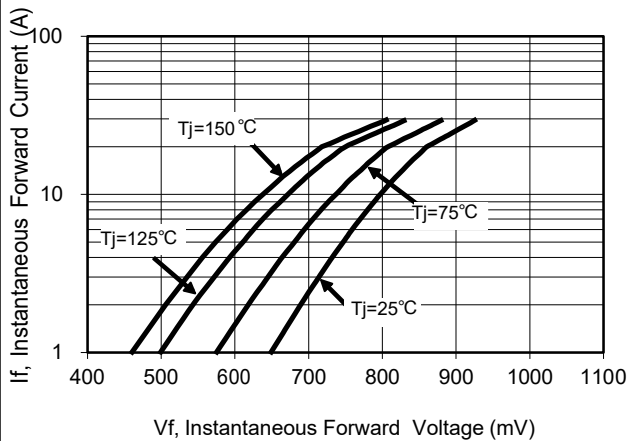
## RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



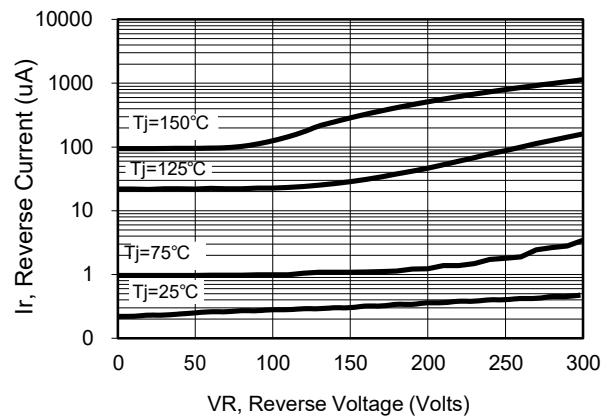
**Current Derating, Case**



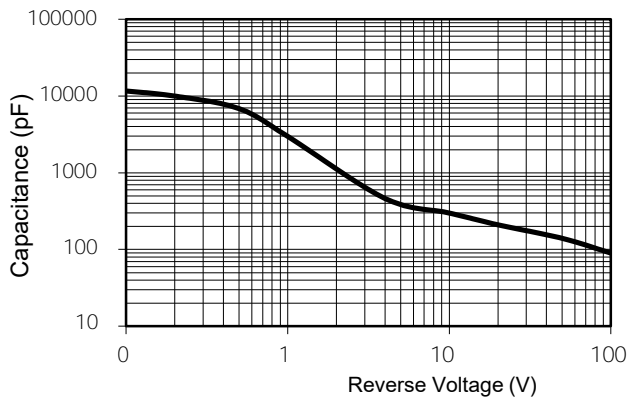
**Maximum Repetitive Surge Current**



**Typical Forward Voltage**



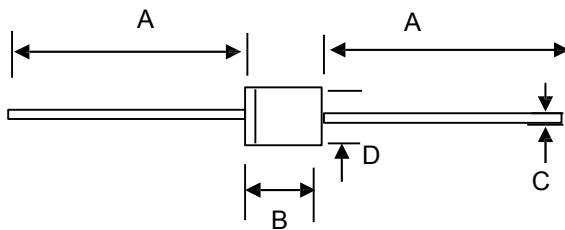
**Typical Reverse Current**



**Typical Junction Capacitance**

## PACKAGE OUTLINE DIMENSIONS

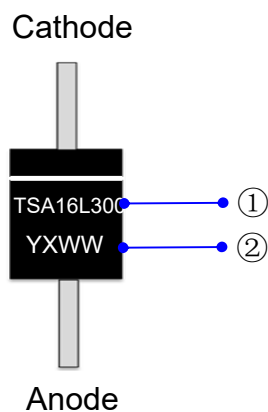
### DO-201AD



### DO-201AD mechanical data

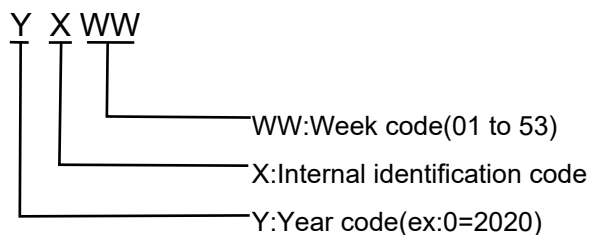
UNIT		A	B	C	D
mm	max	26.5	9.5	1.4	5.3
	min	24.5	7.3	1.1	4.8
mil	max	1043.30	374.01	55.12	208.67
	min	946.57	287.40	39.37	188.97

## Marking Information



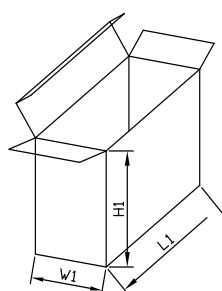
① Product model : TSA16L300

② PDC information:

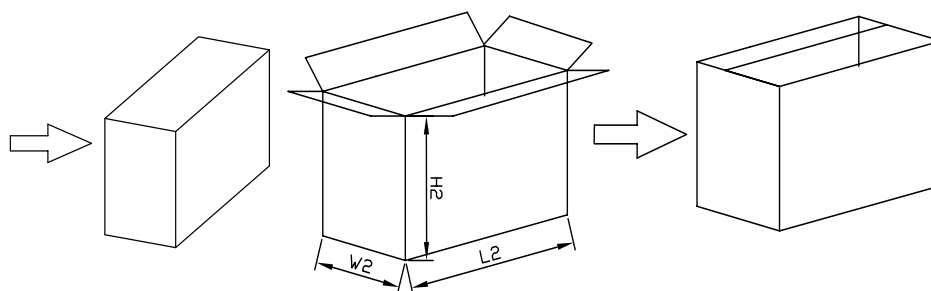


## Packaging Information

1. Inside Box



2. Outside Box



## Packaging Information

NO	UNIT	Inside Box			Outside Box		
		L1	W1	H1	L2	W2	H2
Size	mm	255	75	145	415	280	320
QTY	PCS	Smallest package, 1000PCS/carton			10,000PCS/carton, 10 boxes in total		
Note	Tolerance	≤20mm, ±3mm;		21-100mm, ±5mm;	101-500mm, ±10mm		