Taiwan Semiconductor



10A, 200V Trench Schottky Rectifier

FEATURES

- Patented Trench Schottky technology
- Excellent high temperature stability
- Low forward voltage
- Low power loss/ high efficiency
- High forward surge capability
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

TYPICAL APPLICATIONS

Trench Schottky barrier rectifier is designed for high frequency switched mode power supplies such as adapters, lighting, and

DC/DC converters.

MECHANICAL DATA

Case: TO-263AB (D²PAK)

Molding compound meets UL 94 V-0 flammability rating

Packing code with suffix "G" means green compound (halogen-free) Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

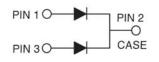
Polarity: As marked

Weight: 1.6 g (approximately)









TO-263AB (D²PAK)

PARAMETER			SYMBOL	TSD10I	_200CW	UNIT
laximum repetitive peak reverse voltage		V _{RRM}	2	00	V	
Maximum average forward	per device			10		
rectified current	pe	r diode	I _{F(AV)}	5		Α
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode		I _{FSM}	100		А	
Voltage rate of change (Rated V _R)			dV/dt	10000		V/µs
				TYP	MAX	
Instantaneous forward voltage per diode (Note1)	I _F = 5A	T _J = 25°C		0.84	0.90	
	I _F = 10A		V _F	0.92	0.98	V
	I _F = 5A	T _J = 125°C	V _F	0.72	0.78	
	I _F = 10A			0.80	0.86	
		T _J = 25°C		-	50	μA
		T _J = 125°C	l _R	-	5	mA
Typical thermal resistance	per diode		R _{θJC}	5		°C/W
Operating junction temperature range		TJ	- 55 to +150		°C	
Storage temperature range		T _{STG}	- 55 to +150		°C	

Note 1: Pulse test with pulse width=300µs, 1% duty cycle



ORDERING INFORMATION					
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING	
TSD10L200CW	C0	G	D ² PAK	50 / Tube	

EXAMPLE						
EXAMPLE PART NO.		PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION		
TAKT NO.		CODE	30111X			
TSD10L200CW C0G	TSD10L200CW	C0	G	Green compound		

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

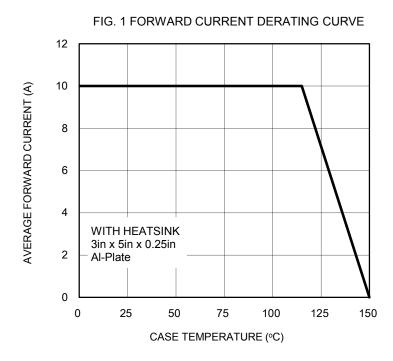
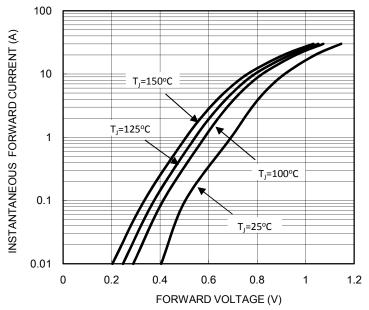
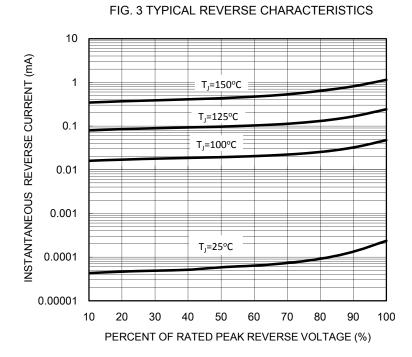


FIG. 2 TYPICAL FORWARD CHARACTERISTICS





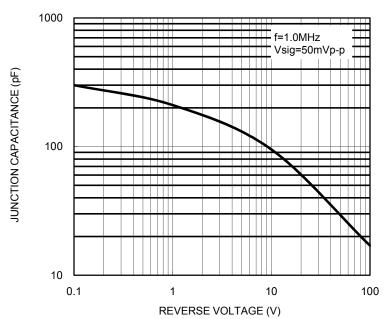
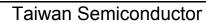
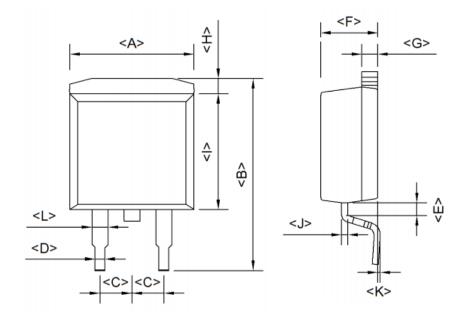


FIG. 4 TYPICAL JUNCTION CAPACITANCE





PACKAGE OUTLINE DIMENSIONS TO-263AB (D²PAK)



DIM.	Unit	(mm)	Unit (inch)	
Dilvi.	Min	Max	Min	Max
Α	9.600	10.050	0.378	0.396
В	14.920	15.520	0.587	0.611
С	2.540 (TYP)		0.100 (TYP)	
D	0.675	0.975	0.027	0.038
E	1.778 (TYP)		0.070 (TYP)	
F	4.390	4.790	0.173	0.189
G	1.150	1.450	0.045	0.057
Н	1.600 (TYP)		0.063 (TYP)	
I	9.170	9.370	0.361	0.369
J	0.400	0.600	0.016	0.024
K	0.254 (TYP)		0.010 (TYP)	
L	1.150	1.550	0.045	0.061

MARKING DIAGRAM



P/N = Specific Device Code

G = Green Compound

YWW = Date Code F = Factory Code





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Document Number: DS_D1510006 Version: A15