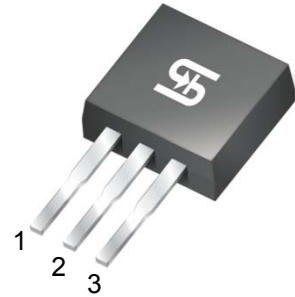


30A, 100V - 200V Trench Schottky Rectifiers

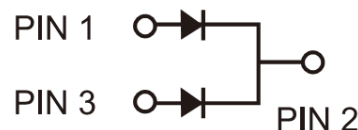
FEATURES

- 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 definition


I²PAK

TYPICAL APPLICATIONS

Trench Schottky barrier rectifier are designed for high frequency miniature switched mode power supplies such as adapters, lighting and on-board DC/DC converters.



MECHANICAL DATA

Case: I²PAK

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

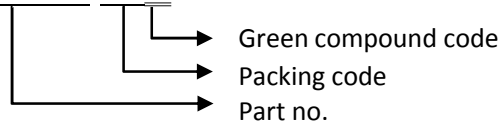
Weight: 1.6 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A = 25°C unless otherwise noted)											
PARAMETER			SYMBOL	TSI30H 100CW	TSI30H 120CW	TSI30H 150CW	TSI30H 200CW			UNIT	
Maximum repetitive peak reverse voltage			V _{RRM}	100	120	150	200			V	
Maximum average forward rectified current	per device		I _{F(AV)}	30						A	
	per diode			15							
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode			I _{FSM}	200						A	
Voltage rate of change (Rated V _R)			dV/dt	10000						V/μs	
				TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX
Instantaneous forward voltage per diode (Note1)	I _F = 15A	T _J = 25°C	V _F	0.69	0.78	0.75	0.84	0.81	0.90	0.84	0.92
		T _J = 125°C		0.61	0.68	0.64	0.73	0.68	0.77	0.70	0.79
Instantaneous reverse current per diode at rated reverse voltage	T _J = 25°C		I _R	-	250	-	250	-	150	-	150
	T _J = 125°C			10	35	10	35	3	20	3	20
Typical thermal resistance per diode			R _{θJC}	2.7						°C/W	
Operating junction temperature range			T _J	- 55 to +150						°C	
Storage temperature range			T _{STG}	- 55 to +150						°C	

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

ORDER INFORMATION (EXAMPLE)

TSI30H100CW COG



RATINGS AND CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

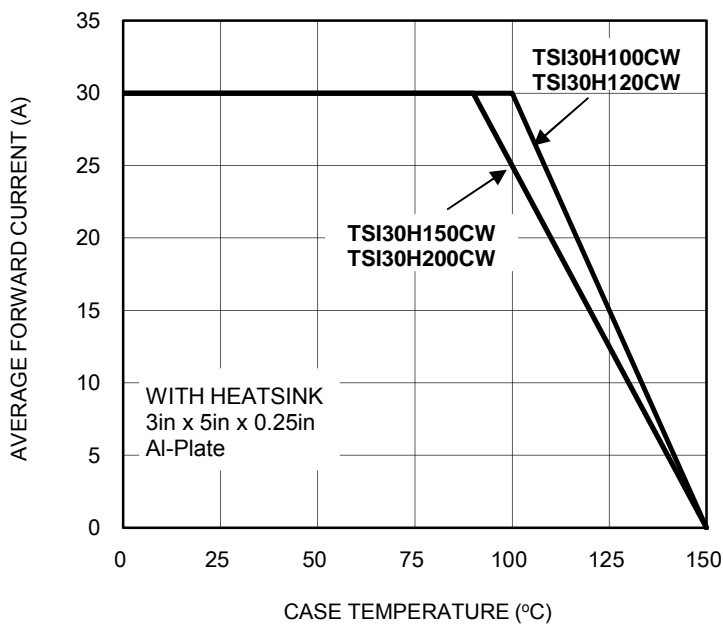


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

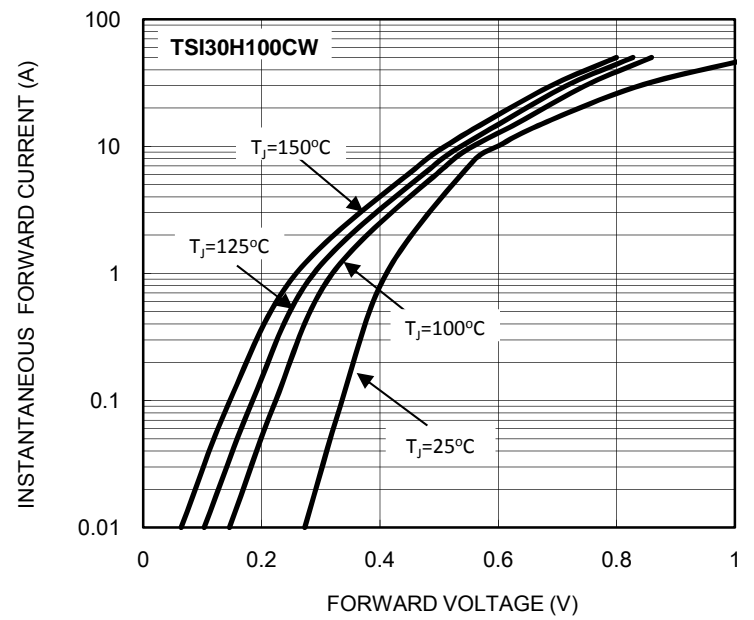


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

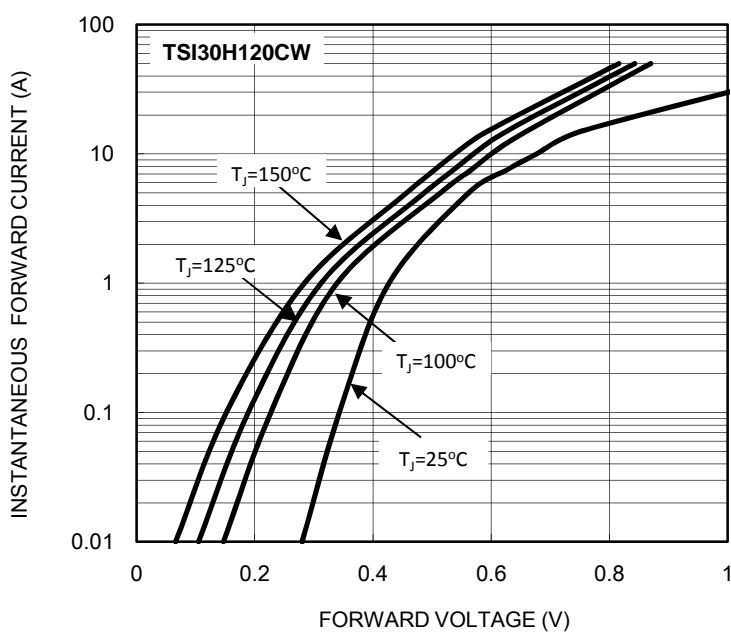


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

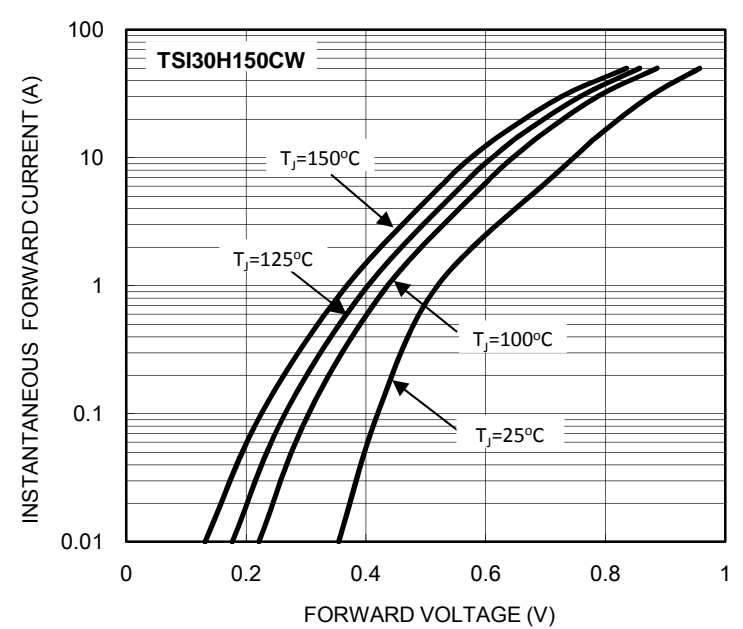


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

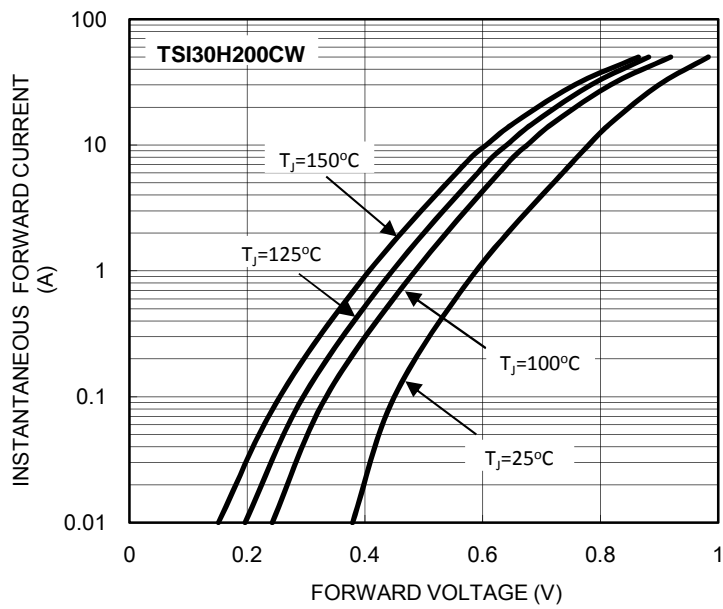


FIG. 6 TYPICAL REVERSE CHARACTERISTICS

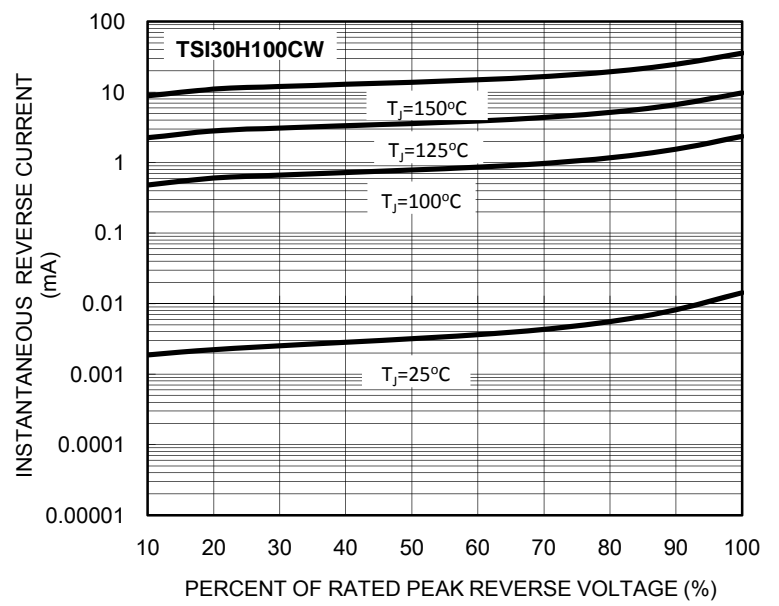


FIG. 7 TYPICAL REVERSE CHARACTERISTICS

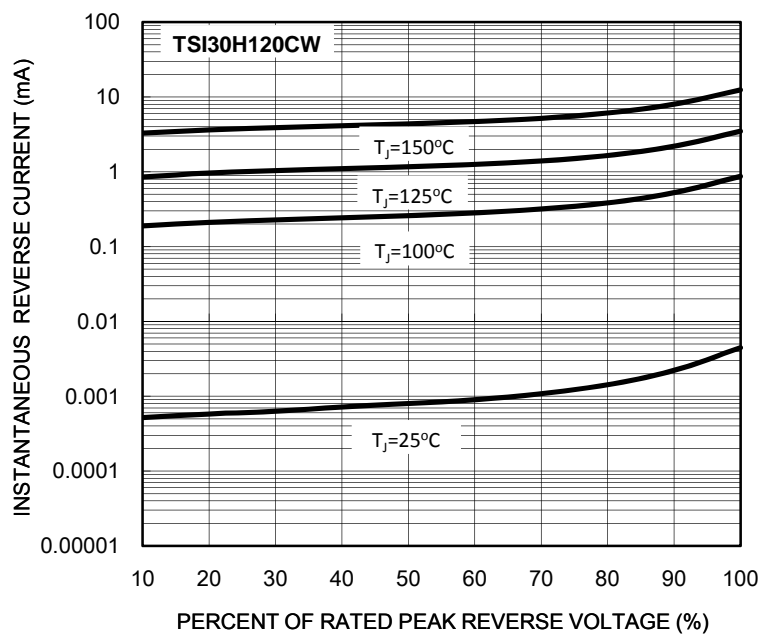


FIG. 8 TYPICAL REVERSE CHARACTERISTICS

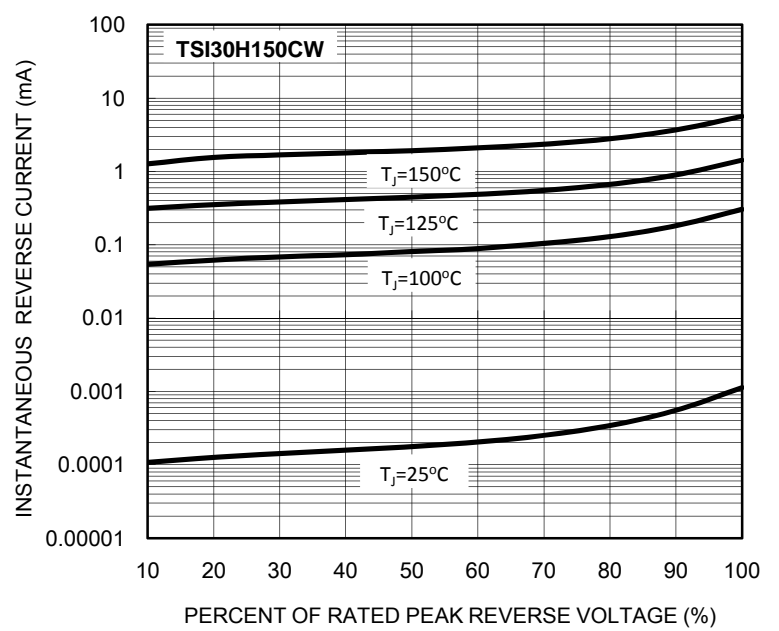


FIG. 9 TYPICAL REVERSE CHARACTERISTICS

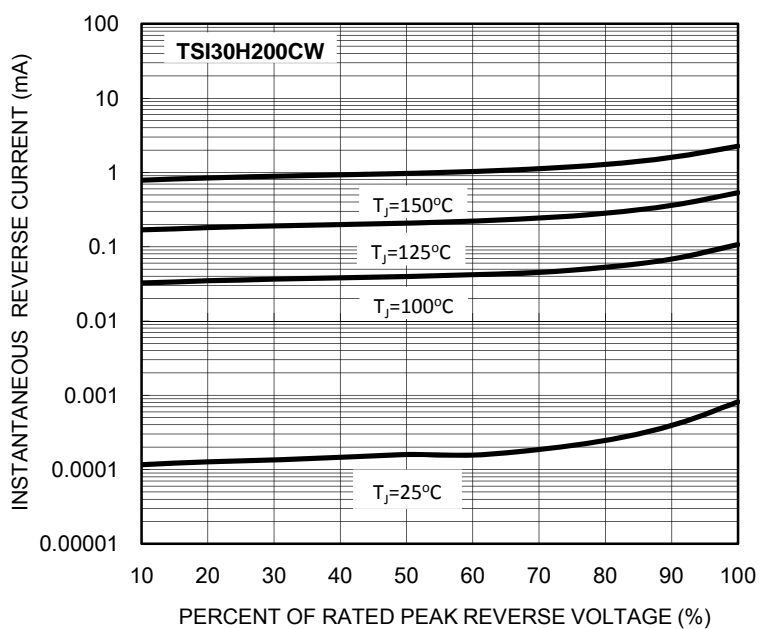
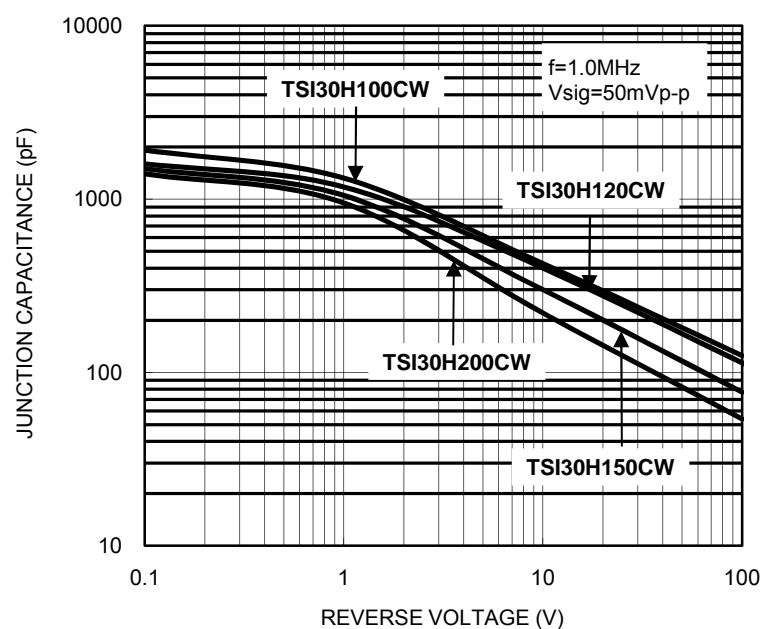
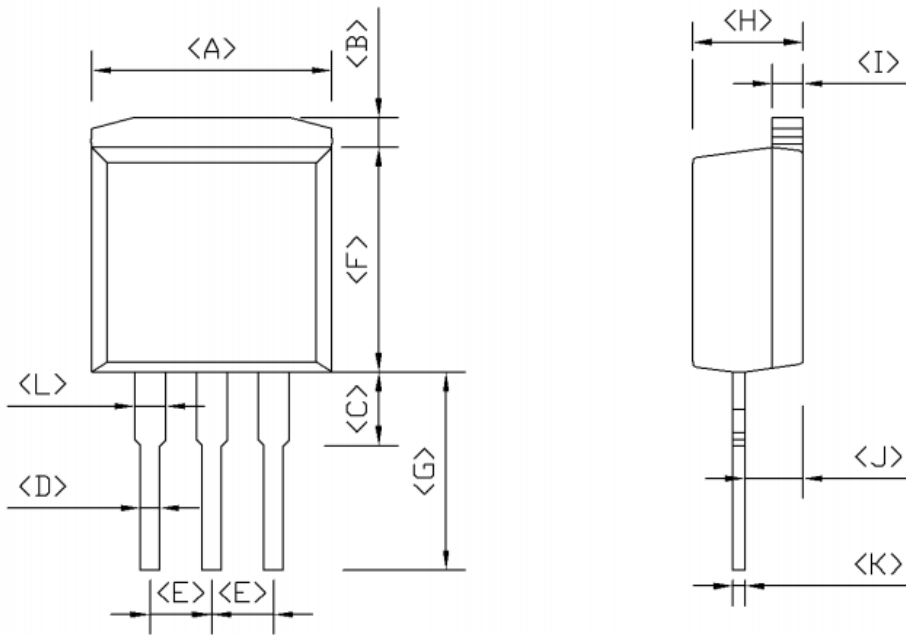


FIG. 10 TYPICAL JUNCTION CAPACTIANCE



PACKAGE OUTLINE DIMENSIONS

I²PAK



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	-	10.50	-	0.413
B	1.14	1.40	0.045	0.055
C	2.80	4.20	0.110	0.165
D	0.68	0.94	0.027	0.037
E	2.41	2.67	0.095	0.105
F	9.07	9.47	0.357	0.373
G	7.79	9.35	0.307	0.368
H	4.40	4.70	0.173	0.185
I	1.14	1.40	0.045	0.055
J	2.20	2.80	0.087	0.110
K	0.35	0.64	0.014	0.025
L	0.95	1.45	0.037	0.057

MARKING DIAGRAM



- P/N = Marking Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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