Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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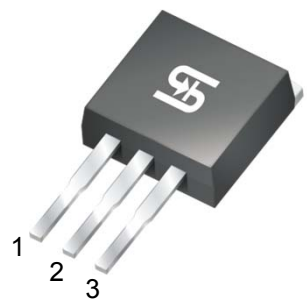
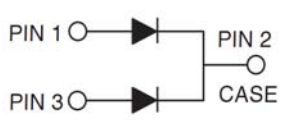
20A, 100V - 200V Trench Schottky Rectifiers

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



I^2PAK



Pb-Free

RoHS COMPLIANT

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: I^2PAK

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	TSI20H 100CW		TSI20H 120CW		TSI20H 150CW		TSI20H 200CW		UNIT
Maximum repetitive peak reverse voltage			V_{RRM}	100		120		150		200		V
Maximum average forward rectified current	per device		$I_{F(AV)}$	20								A
	per diode			10								
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode			I_{FSM}	150								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 = 5A	T_J = 25°C	V_F	0.57	-	0.62	-	0.72	-	0.77	-	V
	I_F = 10A			0.67	0.79	0.78	0.87	0.81	0.90	0.83	0.93	
	I_F = 5A	T_J = 125°C		0.50	-	0.53	-	0.58	-	0.62	-	
	I_F = 10A			0.59	0.68	0.63	0.72	0.66	0.75	0.68	0.78	
Instantaneous reverse current per diode at rated reverse voltage		T_J = 25°C	I_R	-	200	-	200	-	100	-	100	μA
		T_J = 125°C		8	25	8	25	3	15	3	15	mA
Typical thermal resistance per diode			$R_{\theta JC}$	2.8								°C/W
			$R_{\theta JL}$	3.8								°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

ORDERING INFORMATION				
PART NO.	**PACKING CODE**	**PACKING CODE SUFFIX**	**PACKAGE**	**PACKING**
TSI20HXXXCW (Note 1, 2)	C0	G	I^2PAK	50 / Tube

Note 1: "XXX" defines voltage from 100V (TSI20H100CW) to 200V (TSI20H200CW)

Note 2: Whole series with green compound

EXAMPLE				
PREFERRED P/N	**PART NO.**	**PACKING CODE**	**PACKING CODE SUFFIX**	**DESCRIPTION**
TSI20H120CW C0G	TSI20H120CW	C0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

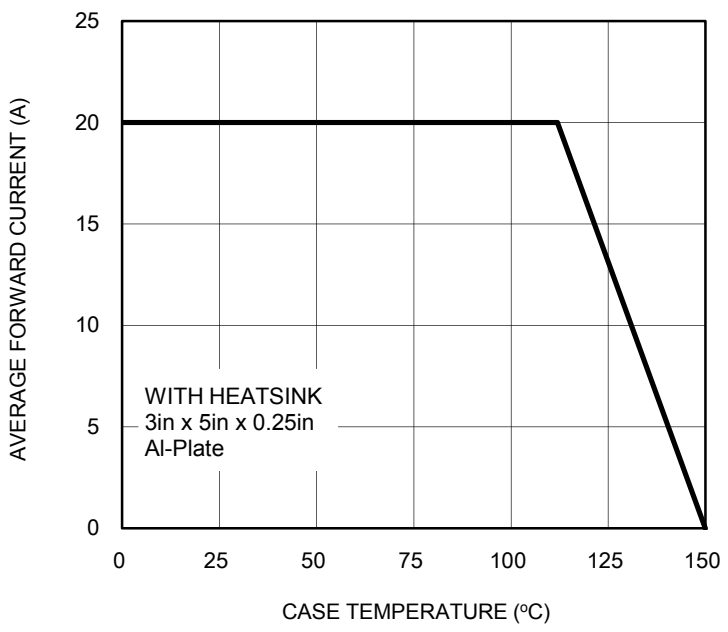


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

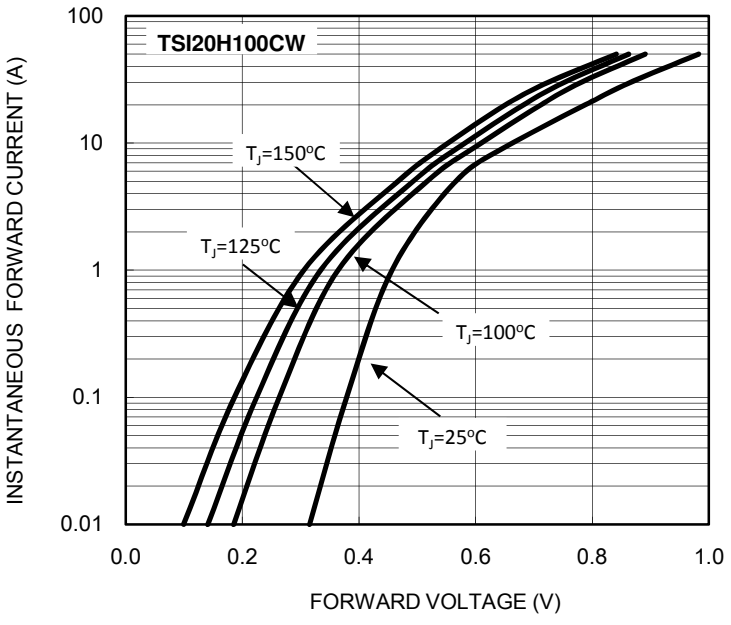


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

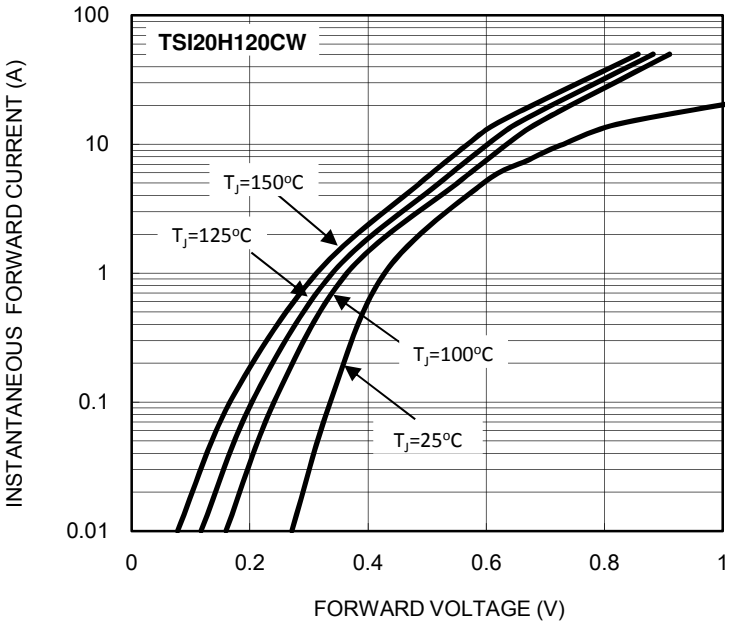


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

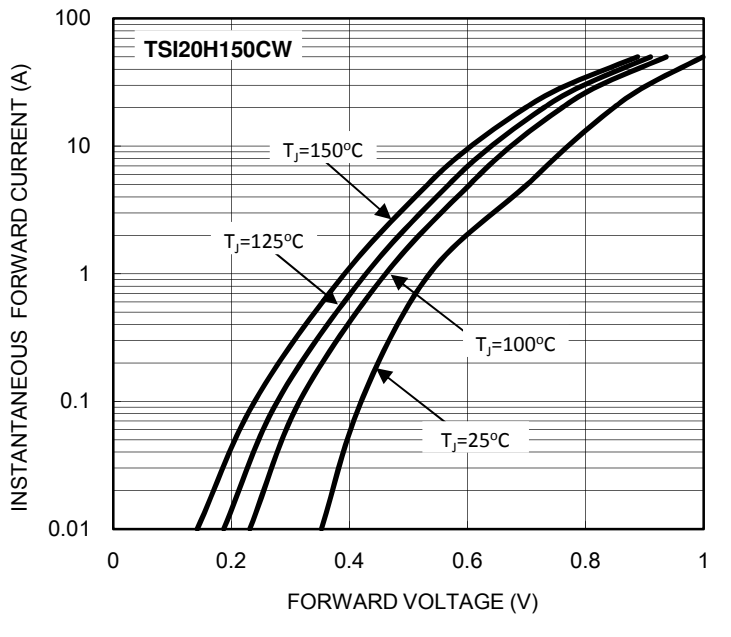


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

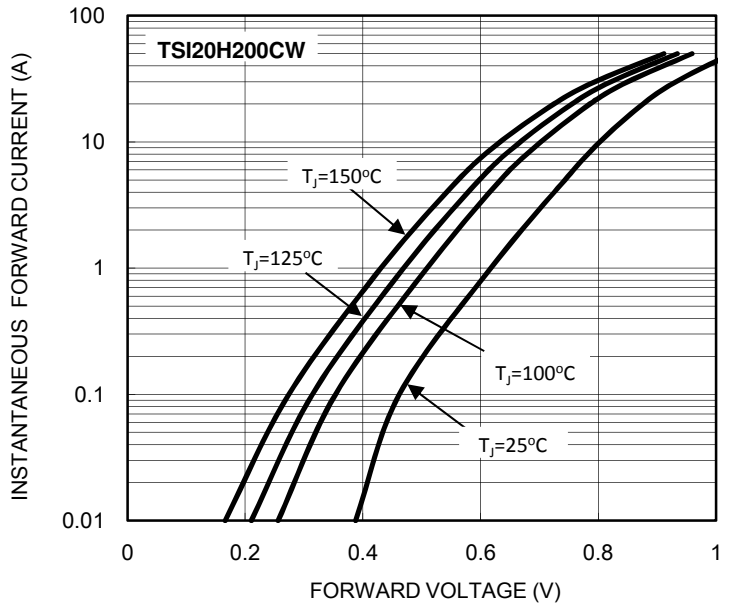


FIG. 6 TYPICAL REVERSE CHARACTERISTICS

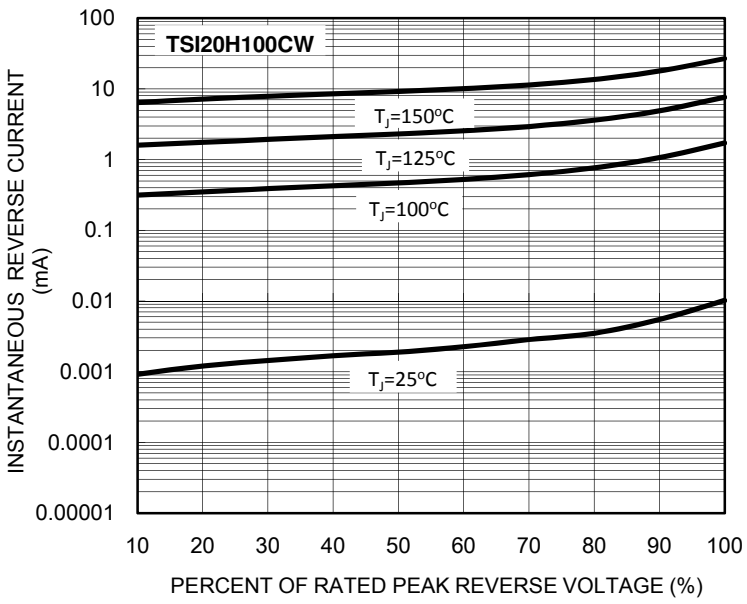


FIG. 7 TYPICAL REVERSE CHARACTERISTICS

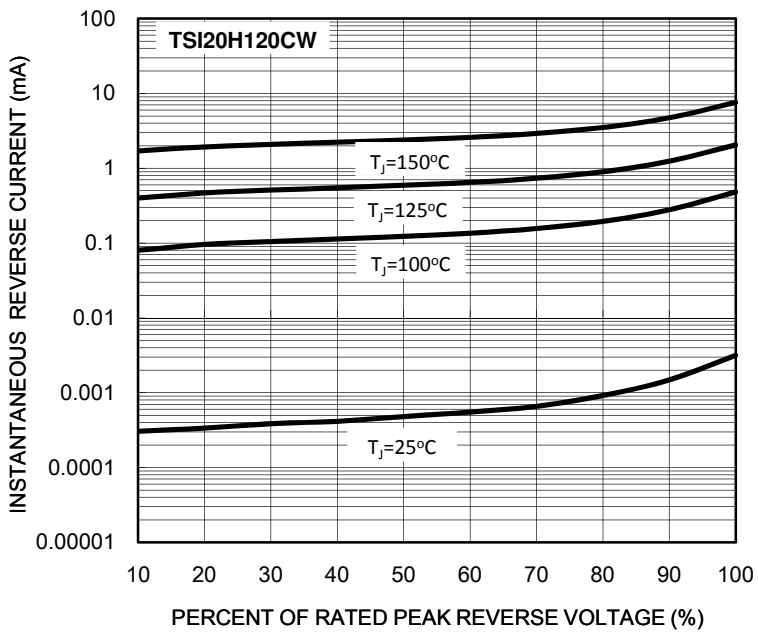


FIG. 8 TYPICAL REVERSE CHARACTERISTICS

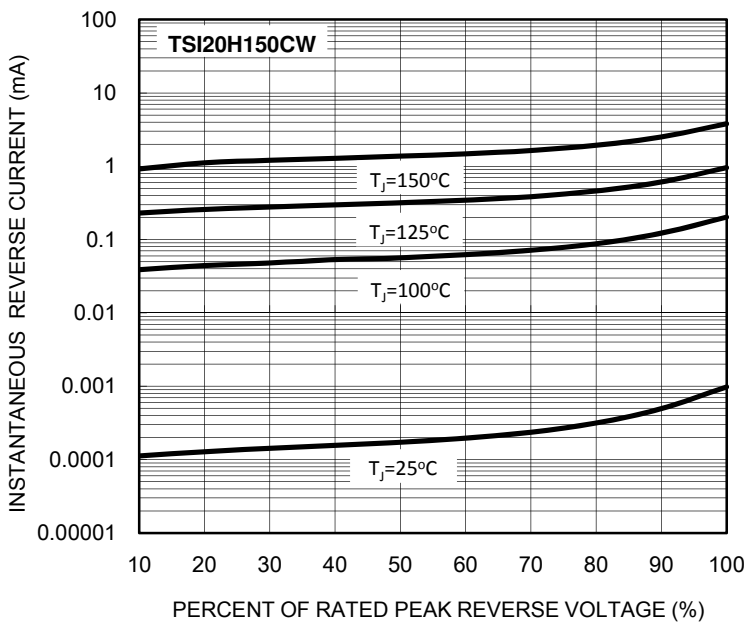


FIG. 9 TYPICAL REVERSE CHARACTERISTICS

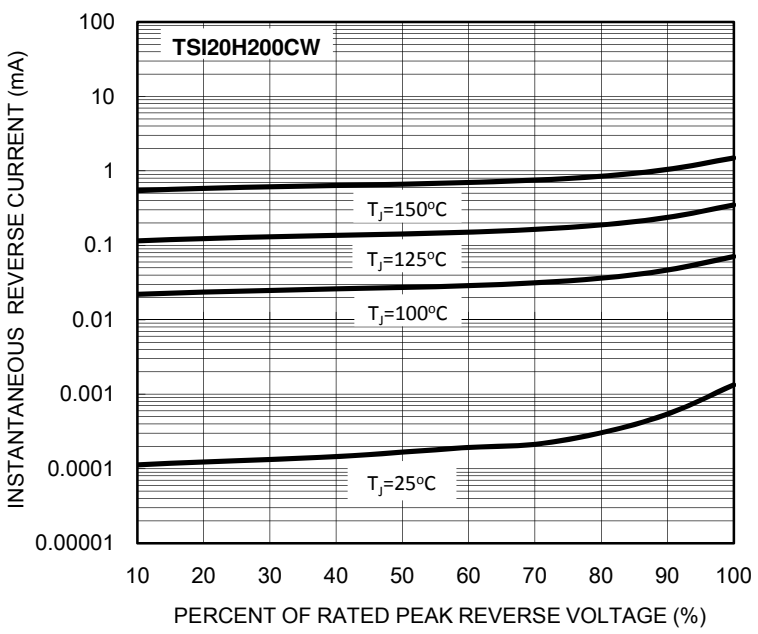
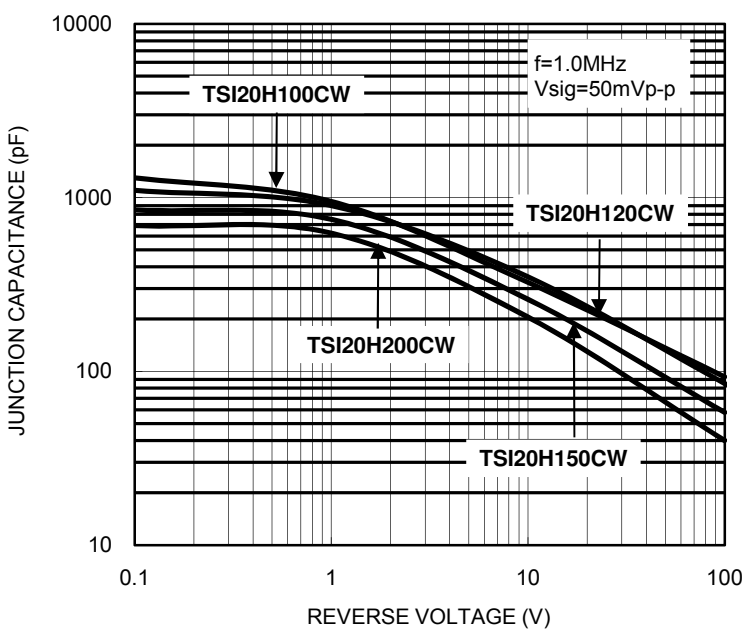
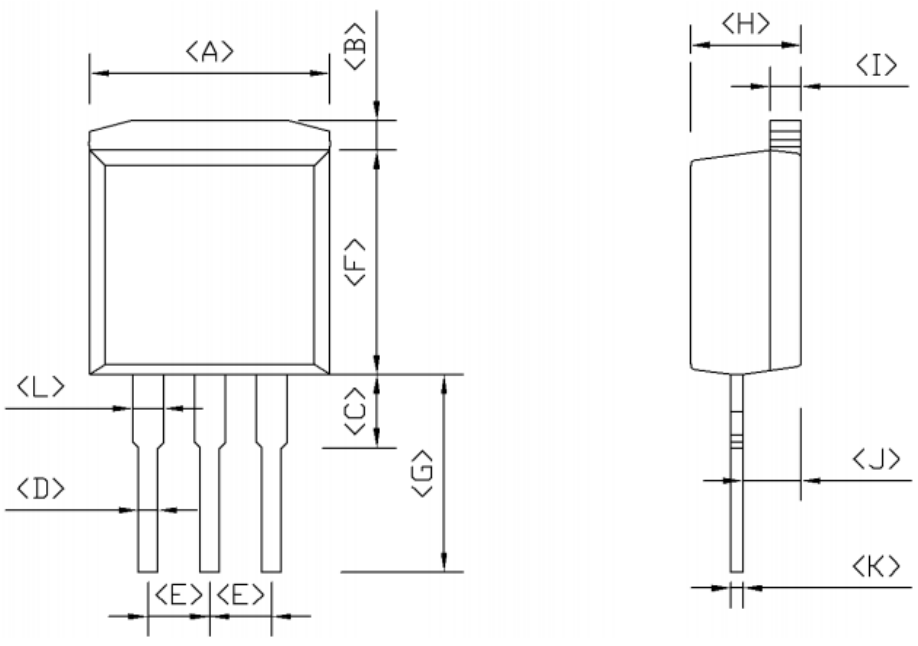


FIG. 10 TYPICAL JUNCTION CAPACITANCE



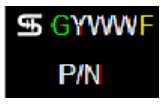
PACKAGE OUTLINE DIMENSIONS

I^2PAK



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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