

10A, 200V Trench Schottky Rectifier

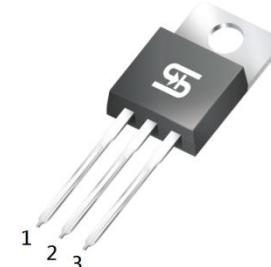
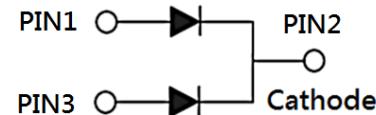
FEATURES

- Patented Trench Schottky technology
- Excellent high temperature stability
- Low forward voltage
- Low power loss/ High efficiency
- High forward surge capability
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

- Switching mode power supply (SMPS)
- Adapters
- DC to DC converters

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
I_F	10	A
V_{RRM}	200	V
I_{FSM}	100	A
$T_J \text{ MAX}$	150	°C
Package	TO-220AB	
Configuration	Dual dies	


TO-220AB


ABSOLUTE MAXIMUM RATINGS (T _A = 25°C unless otherwise noted)			
PARAMETER	SYMBOL	TST10L200CW	UNIT
Marking code on the device		TST10L200CW	
Repetitive peak reverse voltage	V_{RRM}	200	V
Reverse voltage, total rms value	$V_{R(\text{RMS})}$	140	V
Forward current	I_F	10	A
Surge peak forward current, 8.3ms single half sine wave superimposed on rated load	I_{FSM}	100	A
Critical rate of rise of off-state voltage	dv/dt	10,000	V/μs
Junction temperature	T_J	-55 to +150	°C
Storage temperature	T_{STG}	-55 to +150	°C

THERMAL PERFORMANCE

PARAMETER	SYMBOL	TYP	UNIT
Junction-to-case thermal resistance	$R_{\Theta JC}$	5	°C/W

ELECTRICAL SPECIFICATIONS ($T_A = 25^\circ C$ unless otherwise noted)

PARAMETER	CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode ⁽¹⁾	$I_F = 5A, T_J = 25^\circ C$	V_F	0.84	0.90	V
	$I_F = 10A, T_J = 25^\circ C$		0.92	0.98	V
	$I_F = 5A, T_J = 125^\circ C$		0.72	0.78	V
	$I_F = 10A, T_J = 125^\circ C$		0.80	0.86	V
Reverse current @ rated V_R per diode ⁽²⁾	$T_J = 25^\circ C$	I_R	-	50	μA
	$T_J = 125^\circ C$		-	5	mA

Notes:

1. Pulse test with PW = 0.3ms
2. Pulse test with PW = 30ms

ORDERING INFORMATION

ORDERING CODE	PACKAGE	PACKING
TST10L200CW	TO-220AB	50 / Tube

CHARACTERISTICS CURVES

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

Fig.1 Forward Current Derating Curve

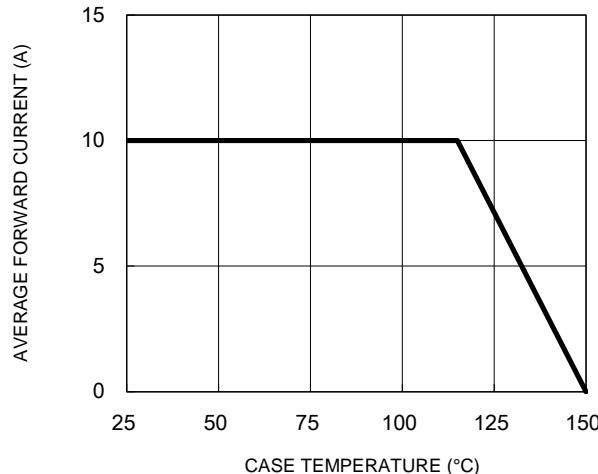


Fig.2 Typical Junction Capacitance

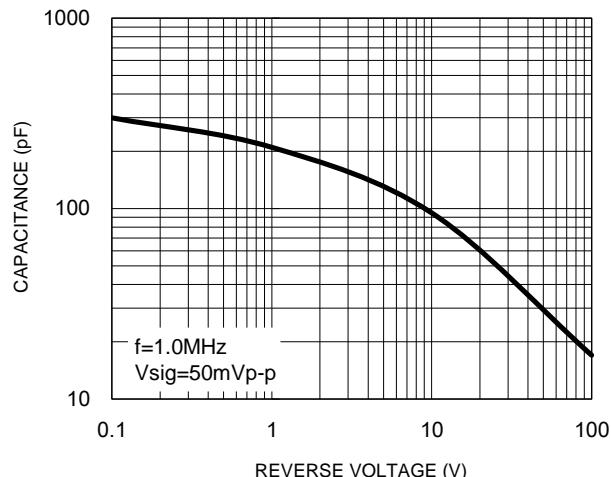


Fig.3 Typical Reverse Characteristics

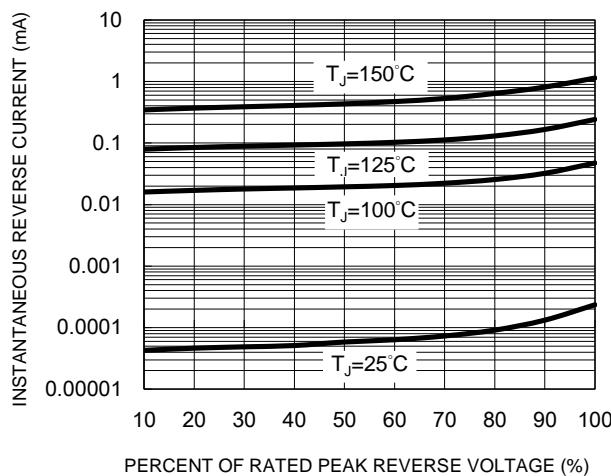
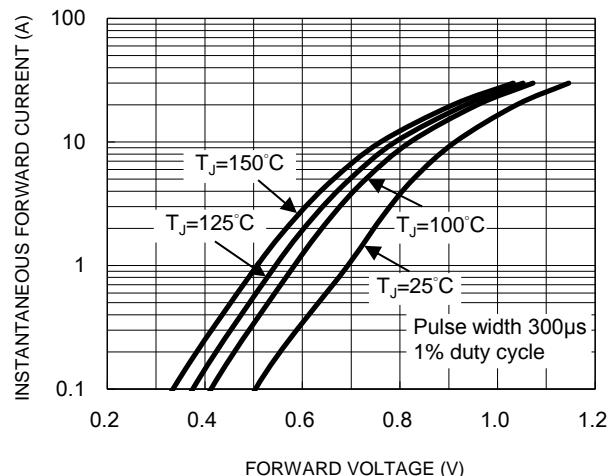
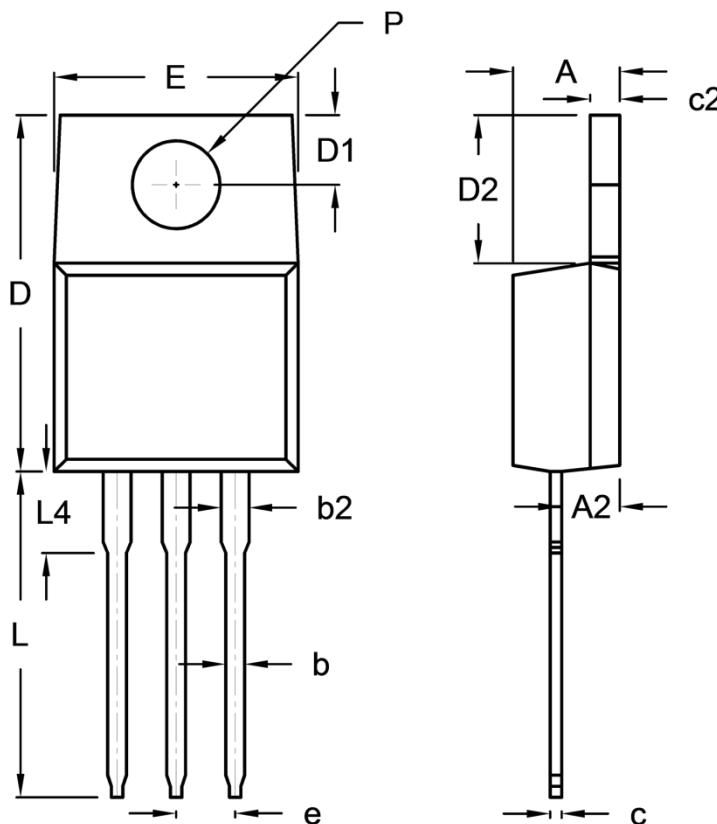


Fig.4 Typical Forward Characteristics



PACKAGE OUTLINE DIMENSIONS
TO-220AB


DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	4.42	4.76	0.174	0.187
A2	2.20	2.80	0.087	0.110
b	0.68	0.94	0.027	0.037
b2	0.95	1.45	0.037	0.057
c	0.35	0.64	0.014	0.025
c2	1.14	1.40	0.045	0.055
D	14.60	16.00	0.575	0.630
D1	2.54	3.44	0.100	0.135
D2	5.84	6.86	0.230	0.270
E	-	10.50	-	0.413
e	2.41	2.67	0.095	0.105
L	13.19	14.79	0.519	0.582
L4	2.80	4.20	0.110	0.165
P	3.54	4.00	0.139	0.157

MARKING DIAGRAM


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

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