T30100CT & T30100FCT

30A/100V Low VF Schottky Barrier Rectifier

FEATURES

- ✧High current capability, low forward voltage
- ✧Excellent high temperature stability
- ✧Low power loss, and high efficiency
- ✧High forward surge capability
- ✧For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ✧RoHS compliant

MACHANICAL DATA

- ✧Case:TO-220/TO-220F molded plastic package
- ✧Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- ✧Molding Compound Flammability Rating:UL94-0
- ✧High temperature soldering guaranteed: 260°C/10second
- ✧Polarity: As marked
- ✧Mounting position: Any

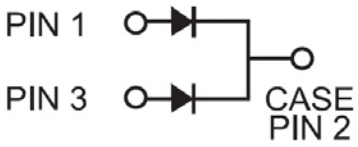
ORDERING INFORMATION

- ✧Device:
  T30100CT
  T30100FCT
- ✧Package: TO-220/TO-220F
- ✧Marking: As marked
- ✧Material: RoHS compliant
- ✧Packing: Plastic tube
- ✧Quantity per tube: 50pcs

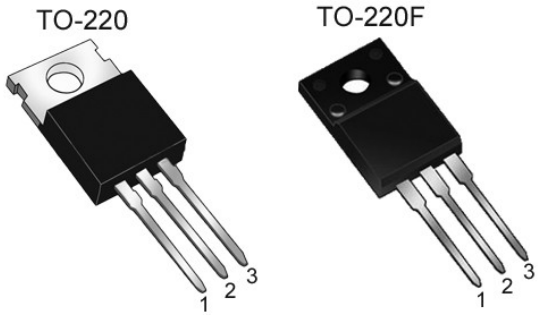
APPLICATIONS

- ✧Switching mode power supply applications
- ✧Portable equipment battery applications
- ✧High frequency rectification
- ✧DC/DC converter

PIN CONFIGURATION



PACKAGE OUTLINE



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ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified)			
Symbol	**Parameter**	**Value**	**Units**
V_{RRM}	Repetitive Peak Reverse Voltage	100	V
$I_{F(AV)}$	Average Forward Current Total device Per Leg	30 15	A
I_{FSM}	Peak Forward Surge Current, 8.3ms single half sine-wave Per Leg	200	A
T_J & T_{STG}	Junction and Storage Temperature	-50~+150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C, unless otherwise specified)						
Symbol	**Parameter**	**Test Condition**	**Min**	**Typ**	**Max**	**Units**
V_F	Forward Voltage	I_F = 10A Ta=25°C		0.59	0.64	V
		I_F = 15A Ta=25°C		0.67	0.74	V
		I_F = 20A Ta=25°C		0.76		V
		I_F = 10A Ta=125°C		0.56	0.62	V
		I_F = 15A Ta=125°C		0.62	0.68	V
		I_F = 20A Ta=125°C		0.68		V
V_R	Reverse Breakdown Voltage	I_R = 0.5mA	100			V
I_R	Reverse Leakage Current	V_R = 100V Ta=25°C		20	150	ΦA
		V_R = 100V Ta=125°C			25	mA
C_J	Junction Capacitance per Leg	f=1MHz, V_R=4V		1000		pF

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 Typical Forward Current Derating Curve

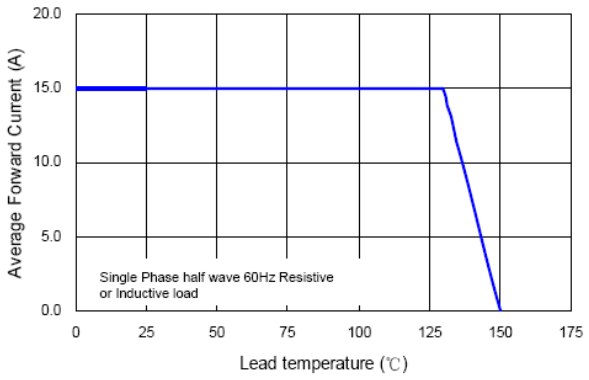


Fig 2 Typical Instantaneous Forward Characteristics

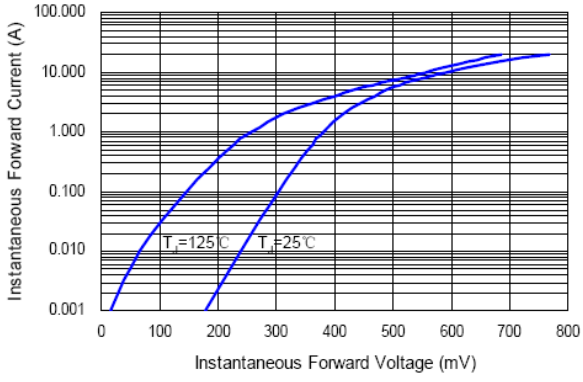


Fig 3 Max. Non-repetitive Forward Surge Current

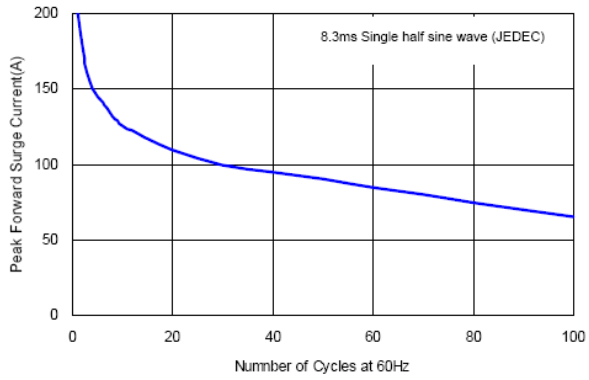


Fig 4 Typical Reverse Characteristics

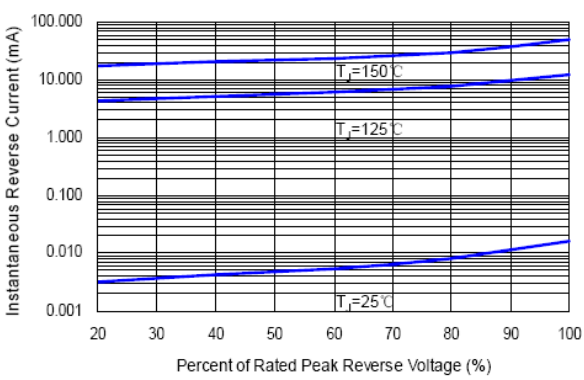
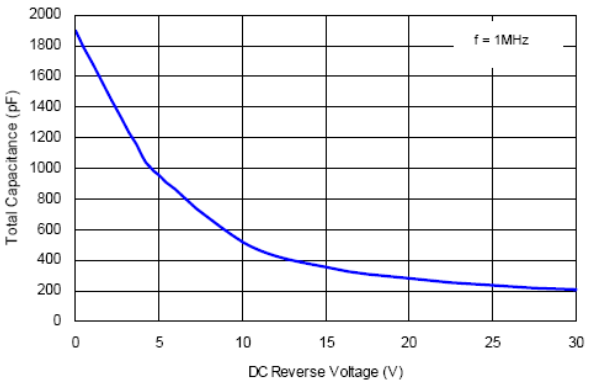


Fig 5 Total Capacitance vs. Reverse Voltage



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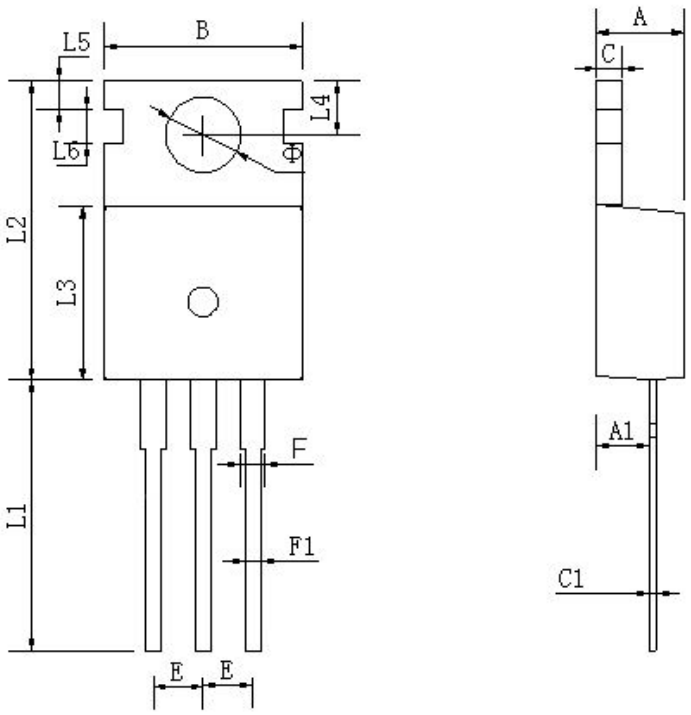
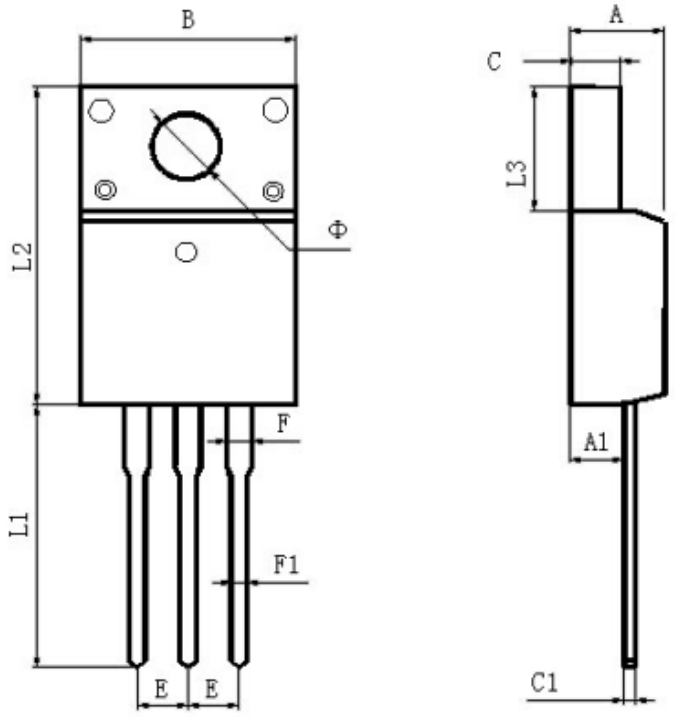
TO-220 PACKAGE OUTLINE DIMENSIONS



DIM	MIN	NOM	MAX
A	4.25	4.45	4.65
A1	2.47	2.67	2.87
B	9.86	10.16	10.46
C	1.22	1.27	1.37
C1	0.33	0.38	0.48
E	2.44	2.54	2.64
F	1.07	1.27	1.47
F1	0.7	0.8	0.9
L1	12.5	13.5	14.5
L2	14.94	15.24	15.54
L3	8.55	8.85	9.15
L4	2.54	2.74	2.94
L5	1.07	1.27	1.47
L6	1.45	1.65	1.85
Φ	3.64	3.84	4.04
Unit mm			

TO-220F PACKAGE OUTLINE DIMENSIONS



DIM	MIN	NOM	MAX
A	4.50	4.70	4.90
A1	2.56	2.76	2.96
B	9.86	10.16	10.46
C	2.34	2.54	2.74
C1	0.45	0.50	0.60
E	2.34	2.54	2.74
F	1.08	1.28	1.48
F1	0.7	0.8	0.9
L1	11.98	12.98	13.98
L2	15.57	15.87	16.17
L3	6.48	6.68	6.88
Φ	2.98	3.18	3.38
Unit mm			