

Technical Data
Data Sheet 3485, Rev. -

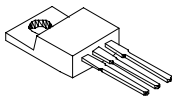
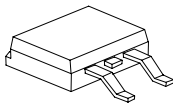
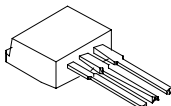
30L30CT-G/30L30CTS-G/30L30CT-1-G
SCHOTTKY RECTIFIER

Applications:

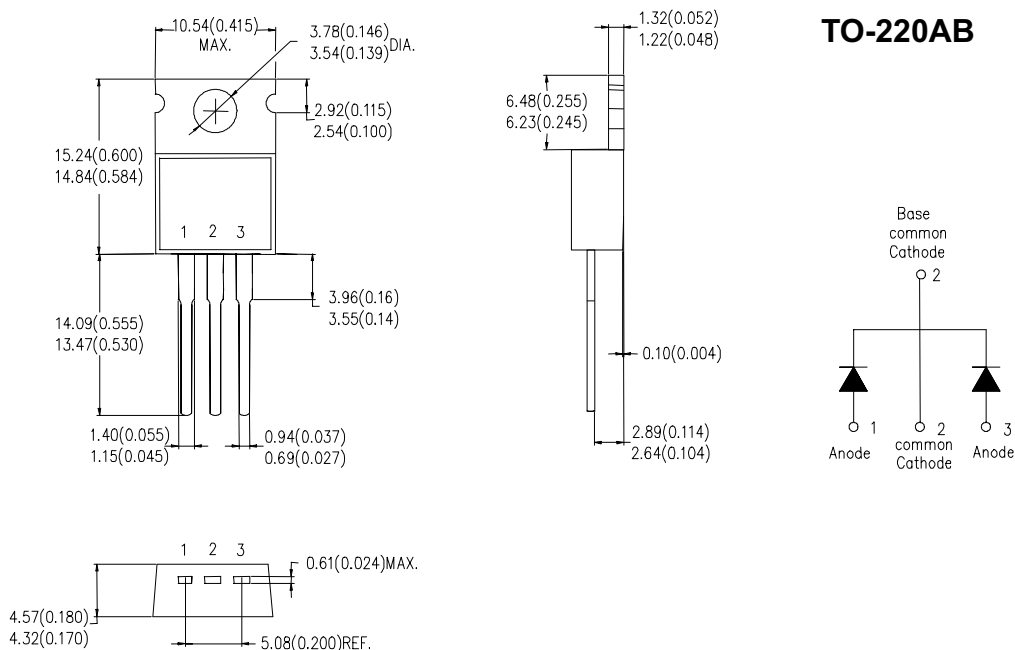
- Switching power supply • Converters • Free-Wheeling diodes • Reverse battery protection

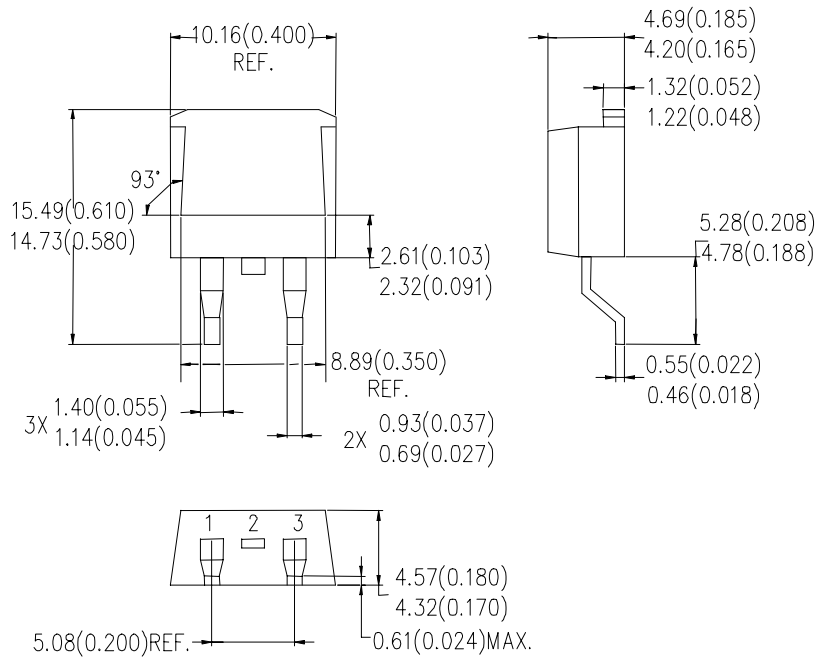
Features:

- 150°C T_J operation
- Center tap configuration
- Very low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Green Products in Compliance with the RoHS Directive

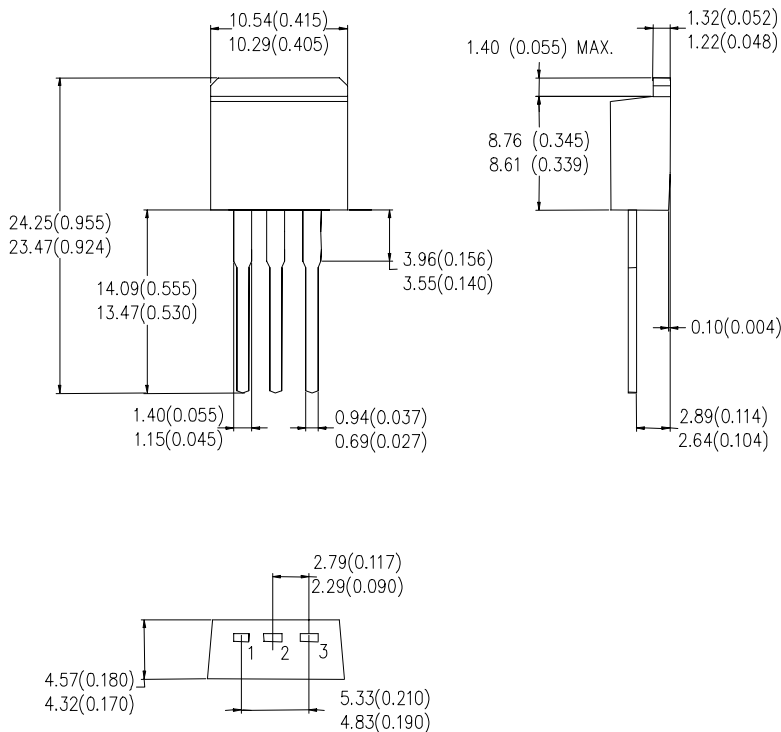
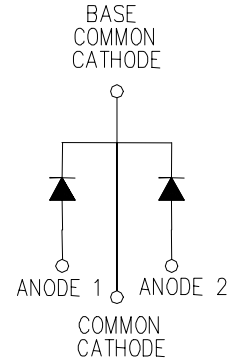
Case styles		
30L30CT-G  TO-220AB	30L30CTS-G  D²PAK	30L30CT-1-G  TO-262

Mechanical Dimensions: In Inches / mm

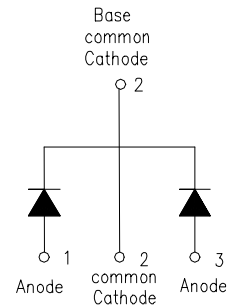




D²PAK



TO-262



Data Sheet 3485, Rev. -
Maximum Ratings:

Green Products

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	30	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 140^\circ\text{C}$, rectangular wave form	15 (per leg) 30 (per device)	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	264	A
Non-Repetitive Avalanche Energy (per leg)	E_{AS}	$T_J = 25^\circ\text{C}$, $I_{AS} = 10\text{ A}$, $L = 2.5\text{ mH}$	125	mJ
Repetitive Avalanche Current (per leg)	I_{AR}	Current decaying linearly to zero in 1 μs Frequency limited by T_J max. $V_A = 1.5 \times V_R$ typical	10	A

Electrical Characteristics:

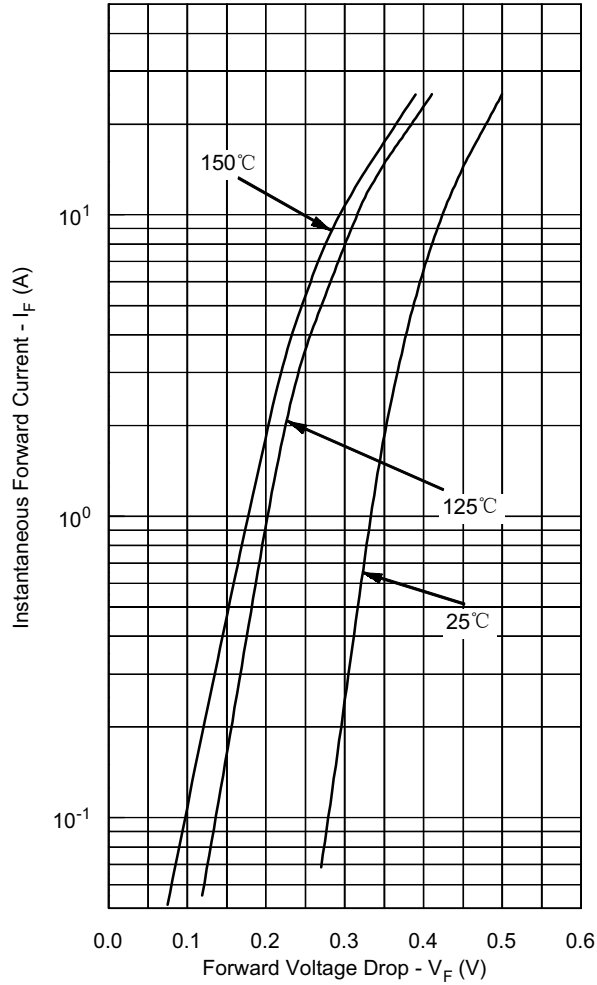
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 15 A, Pulse, $T_J = 25^\circ\text{C}$ @ 30 A, Pulse, $T_J = 25^\circ\text{C}$	0.46 0.57	V
	V_{F2}	@ 15 A, Pulse, $T_J = 125^\circ\text{C}$ @ 30 A, Pulse, $T_J = 125^\circ\text{C}$	0.37 0.50	V
Max. Reverse Current (per leg) *	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	1.50	mA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$	350	mA
Max. Junction Capacitance (per leg)	C_T	@ $V_R = 5\text{ V}$, $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{ MHz}$	1500	pF
Typical Series Inductance (per leg)	L_S	Measured lead to lead 5 mm from package body	8.0	nH
Max. Voltage Rate of Change (Rated V_R)	dv/dt	-	10,000	V/ μs

* Pulse Width < 300 μs , Duty Cycle <2%

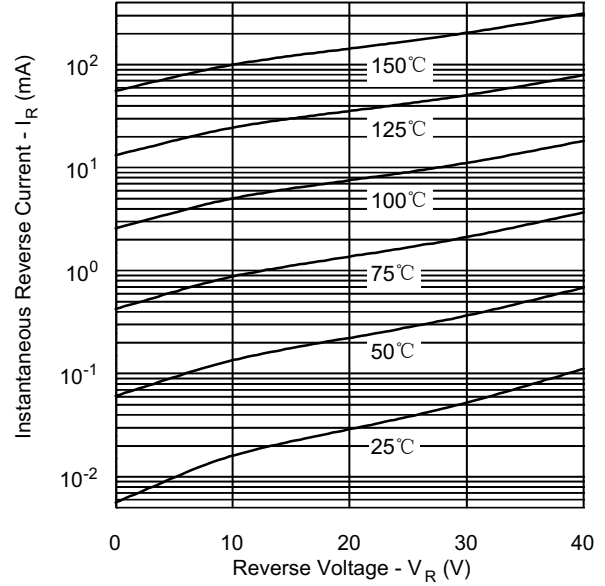
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +150	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	1.5(per leg) 0.8(per package)	$^\circ\text{C/W}$
Approximate Weight	wt	-	2	g
Mounting Torque	T_M	-	6 (min) 12 (max)	Kg-cm
Case Style	TO-220AB D ² PAK TO-262 (Suffix "s" for D ² PAK; Suffix "-1" for TO-262)			

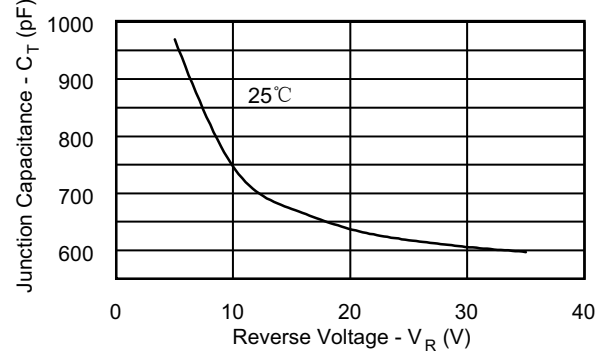
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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