Technical Data
Data Sheet 3485, Rev. -

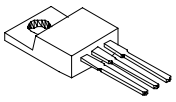
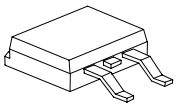
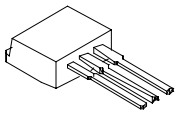
30L30CT-G/30L30CTS-G/30L30CT-1-G
SCHOTTKY RECTIFIER

Applications:

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

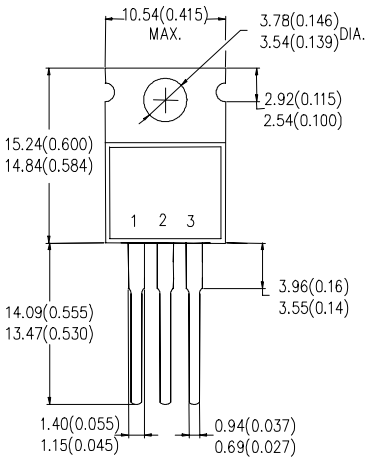
Features:

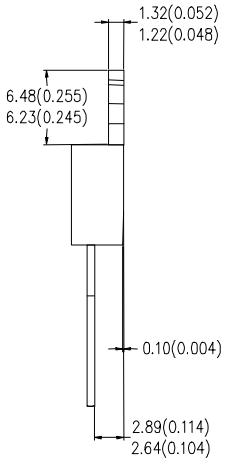
- **150°C T_J operation**
- **Center tap configuration**
- **Very low forward voltage drop**
- **High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance**
- **High frequency operation**
- **Guard ring for enhanced ruggedness and long term reliability**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

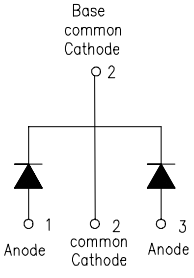
Case styles		
30L30CT-G	**30L30CTS-G**	**30L30CT-1-G**
		
TO-220AB	**D^2PAK**	**TO-262**

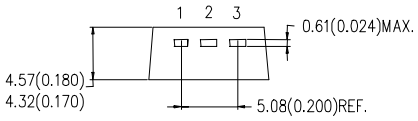
Mechanical Dimensions: In Inches / mm

TO-220AB



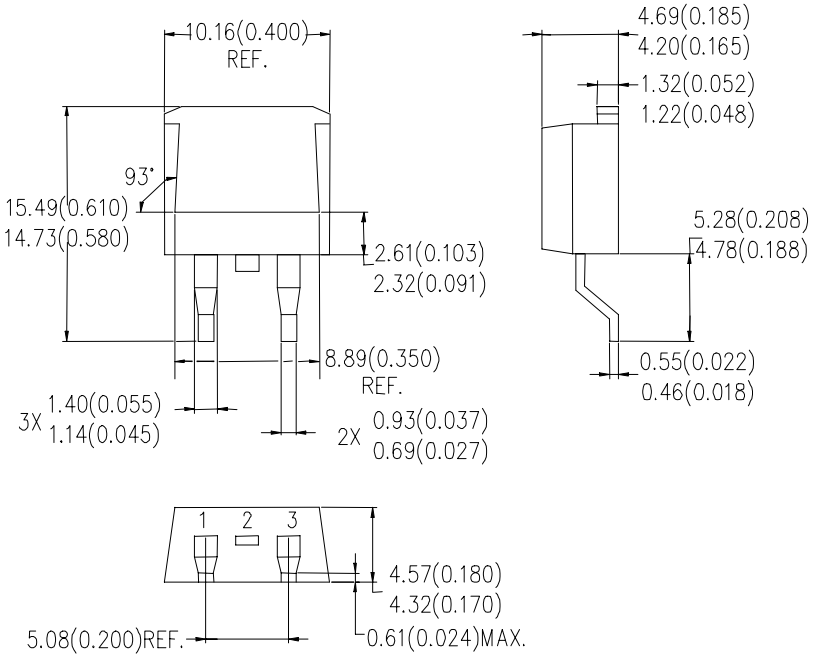


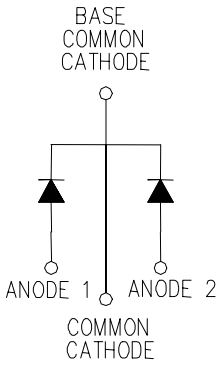




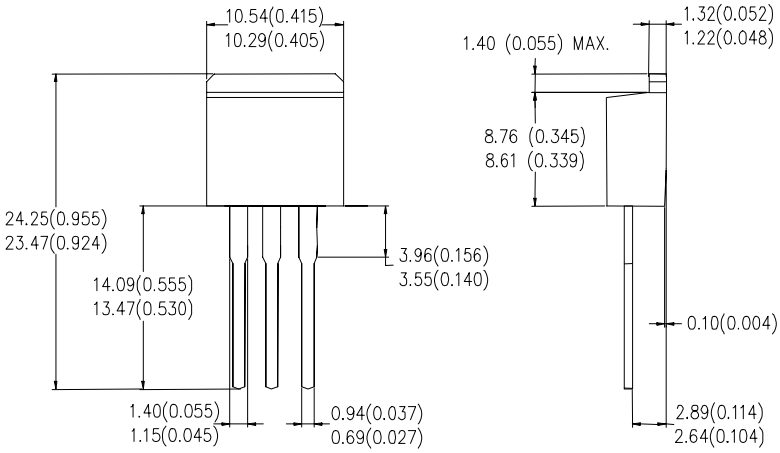
Data Sheet 3485, Rev. -

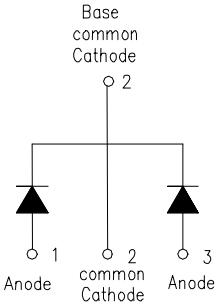
D²PAK

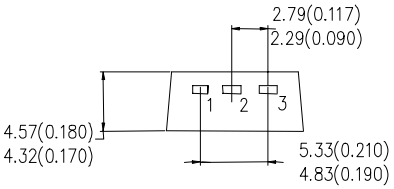




TO-262







Data Sheet 3485, Rev. -

Maximum Ratings:

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 °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 °C, I_{AS} = 10 A, L = 2.5 mH	125	mJ
Repetitive Avalanche Current (per leg)	I_{AR}	Current decaying linearly to zero in 1 µsec Frequency limited by T_J max. V_A = 1.5 x V_R typical	10	A

Electrical Characteristics:

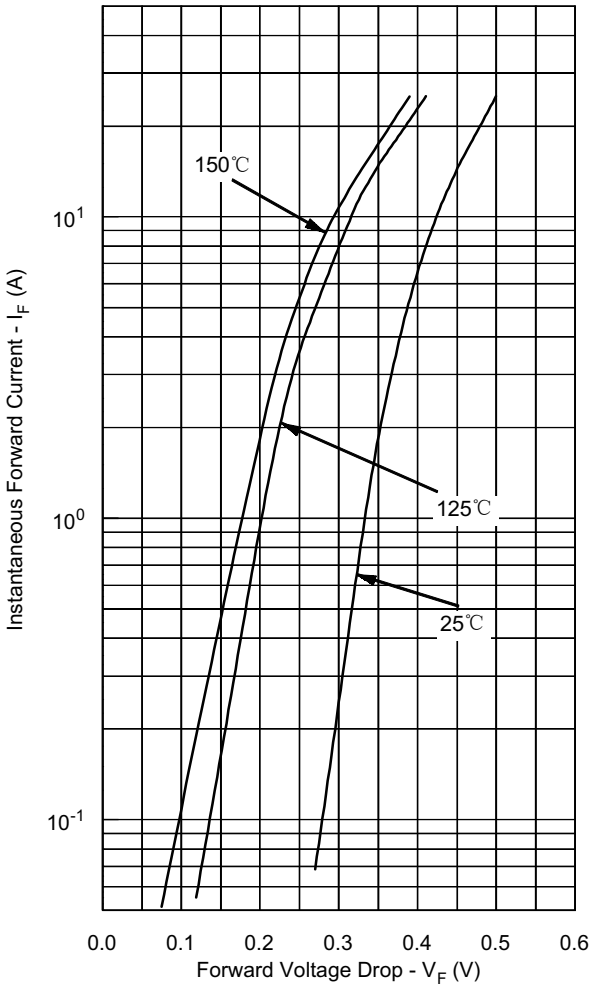
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 15 A, Pulse, T_J = 25 °C @ 30 A, Pulse, T_J = 25 °C	0.46 0.57	V
	V_{F2}	@ 15 A, Pulse, T_J = 125 °C @ 30 A, Pulse, T_J = 125 °C	0.37 0.50	V
Max. Reverse Current (per leg) *	I_{R1}	@V_R = rated V_R T_J = 25 °C	1.50	mA
	I_{R2}	@V_R = rated V_R T_J = 125 °C	350	mA
Max. Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	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 < 300µs, Duty Cycle <2%

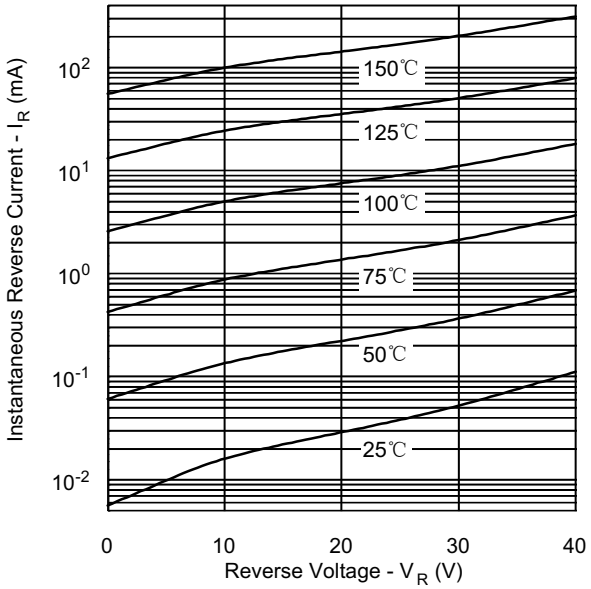
Thermal-Mechanical Specifications:

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

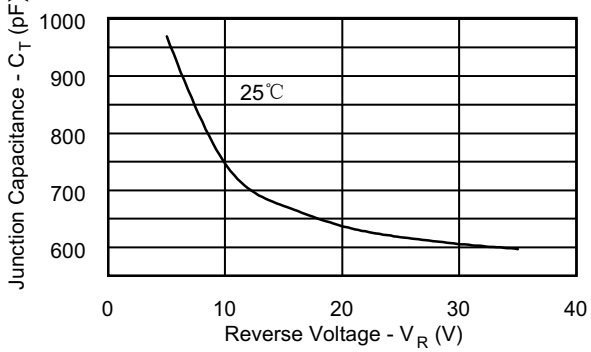
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



Data Sheet 3485, Rev. -

Green Products

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