

LDE60V30CD

Ultra Fast Recovery Diode

$$V_{RRM} = 300\text{ V}$$

$$I_F = 2 \times 30\text{ A}$$

$$t_{rr} = 30\text{ nS}$$

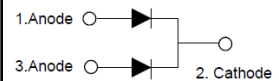
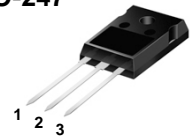
General Description

With excellent performance in reverse recovery time, switching speed and rated current, LDE60U30CS can be utilized with high voltage power switches for voltage limitation and high-frequency current rectification.

Features

- High Breakdown Voltage
- High Speed Switching

TO-247



Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	300	V
V_R	DC Blocking Voltage		
$I_{F(AV)}$	Average Rectifier Forward Current (Per Diode) (Total Diode)	30 60	A
I_{FSM}	Non-Rectifier Peak Surge Current @8.3ms (Per Diode)	300	A
T_J, T_{STG}	Operating and Storage Temperature Range	-55 to +150	$^\circ\text{C}$

Electrical Characteristics (Per Diode)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_{BR}	Breakdown Voltage	$I_R = 50\mu\text{A}$	300	--	--	V
V_F	Forward Voltage	$I_F = 30\text{A}, T_C = 25^\circ\text{C}$	--	1.1	1.3	V
I_R	Reverse Current	$V_R = 300\text{V}, T_C = 25^\circ\text{C}$	--	--	2	μA
t_{rr}	Reverse Recovery Time	$I_F = 1\text{A}, di/dt = 200\text{A}/\mu\text{s}$	--	35	--	ns
		$I_F = 30\text{A}, di/dt = 200\text{A}/\mu\text{s}$	--	45	--	ns

Thermal Resistance Characteristics

Symbol	Parameter	Typ.	Max.	Unit
$R_{\theta JC}$	Junction-to-Case (Per Diode)	--	1.0	$^\circ\text{C}/\text{W}$

LDE60V30CD

Typical Characteristics (Per Diode)

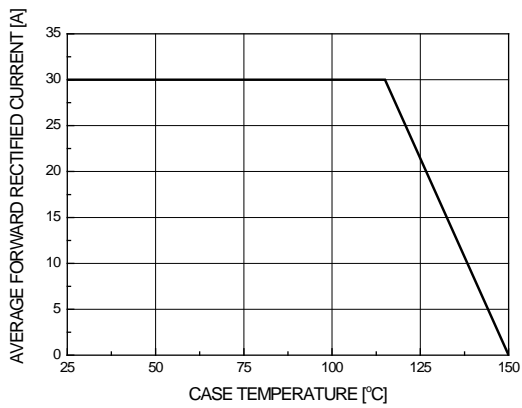


Figure 1. Forward Current Derating Curve

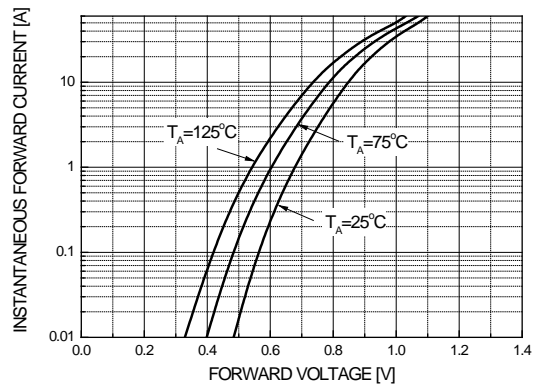


Figure 2. Typical Forward Characteristics

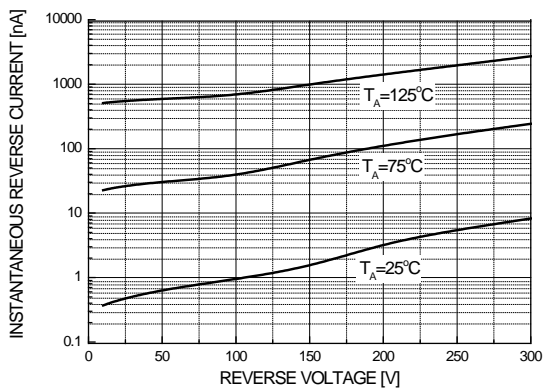


Figure 3. Typical Reverse Characteristics

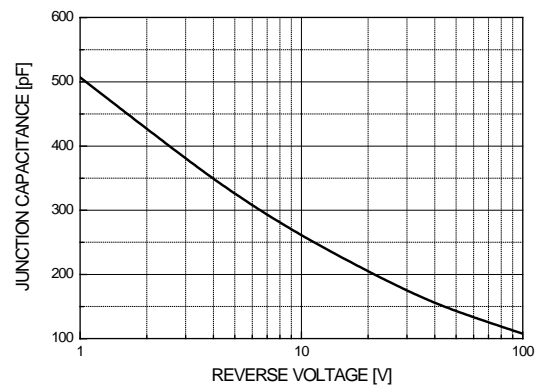


Figure 4. Typical Junction Capacitance

LDE60U30CS

Package Dimension

TO-247

