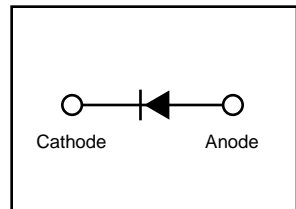


HDPE15U60G

Ultra Fast Recovery Diode

V_{RRM}	= 600 V
I_F	= 15 A
$t_{rr(Typ)}$	= 28 nS



General Description

With excellent performance in reverse recovery time, switching speed and rated current, HDPE15U60G can be utilized with high voltage power switches for voltage limitation and high-frequency current rectification.

Features

- High breakdown voltage
- High speed switching
- Avalanche Energy Rated
- Planar Construction

Applications

- LED Power & Other Charger SMPS
- PFC
- General Purpose

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

Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	600	V
V_R	DC Blocking Voltage		
$I_{F(AV)}$	Average Rectifier Forward Current	15	A
I_{FSM}	Non-Rectifier Peak Surge Current @8.3ms	150	A
T_J, T_{STG}	Operating and Storage Temperature Range	-55 to +150	$^\circ\text{C}$

Electrical Characteristics

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_{BR}	Breakdown Voltage	$I_R = 50\mu\text{A}$	600	--	--	V
V_F	Forward Voltage	$I_F = 15\text{A}, T_C = 25^\circ\text{C}$	--	1.25	1.50	V
		$I_F = 15\text{A}, T_C = 125^\circ\text{C}$	--	1.10	1.30	
I_R	Reverse Current	$V_R = 600\text{V}, T_C = 25^\circ\text{C}$	--	--	10	μA
t_{rr}	Reverse Recovery Time	$I_F = 1\text{A}, di/dt = 200\text{A}/\mu\text{s}$	--	28	--	ns
		$I_F = 15\text{A}, di/dt = 200\text{A}/\mu\text{s}$	--	53	--	ns

Thermal Resistance Characteristics

Symbol	Parameter	Typ.	Max.	Unit
$R_{\theta JC}$	Junction-to-Case	--	1.5	$^\circ\text{C}/\text{W}$

Typical Characteristics

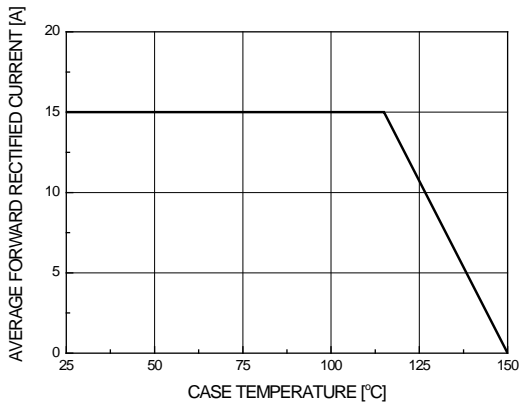


Figure 1. Forward Current Derating Curve

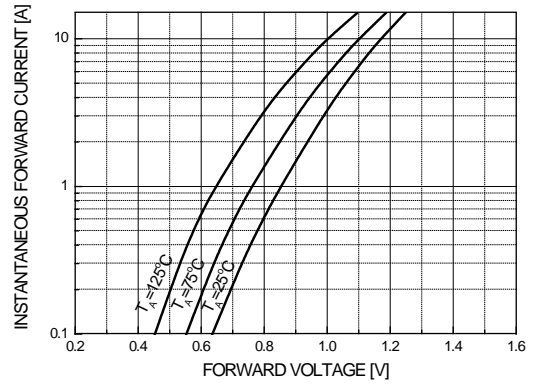


Figure 2. Typical Forward Characteristics

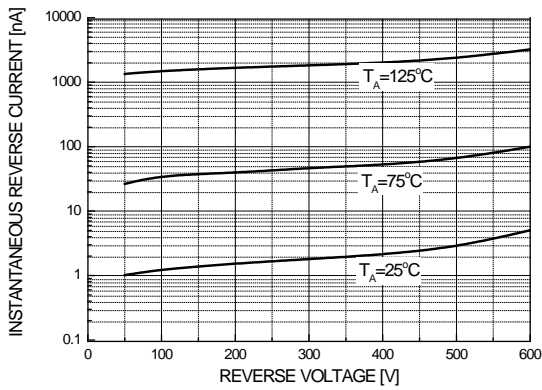


Figure 3. Typical Reverse Characteristics

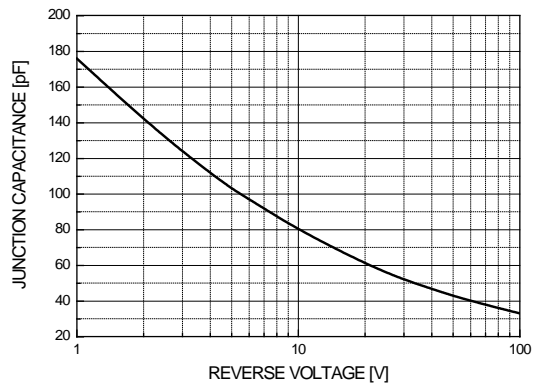
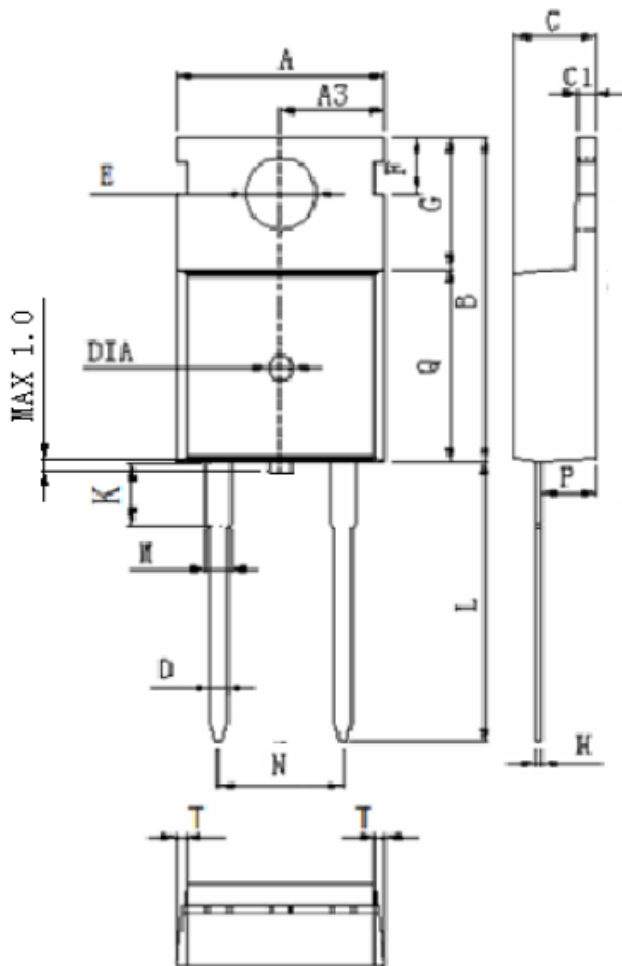


Figure 4. Typical Junction Capacitance

Package Dimension

TO-220-2L



DIM	MILLIMETERS
A	10.0±0.3
A3	5.0±0.2
B	15.8±0.4
C	4.48±0.2
C1	1.3±0.2
D	0.8±0.2
E	3.6±0.2
F	2.95±0.3
G	5.5±0.3
H	0.5±0.1
K	3.1±0.2
L	13.2±0.4
L1	3.0±0.3
M	1.25±0.1
N	5.08±0.05
P	2.4±0.3
Q	9.0±0.3
T	W:0.35
DIA	⊙1.5 (deep 0.2)

Unit :mm