

●General Description

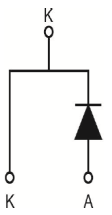
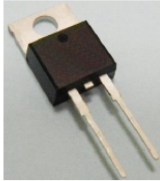

The N-Channel MOSFET FD15U60 has the low $R_{DS(on)}$, low gate charge, fast switching and excellent avalanche characteristics. This device is suitable for fast charge and lighting.

●Features

- Fast switching
- Low $R_{DS(on)}$ & FOM

●Application

- LED/LCD/PDP TV and monitor Lighting
- Power Supplies

	<p>$V_{DS} = 600V$</p> <p>$I_D = 15A$</p>
	
TO-220-2	FTO-220-2

■ RoHS COMPLIANT

●Ordering Information:

Part Number	FD15U60	FD15U60
Package	TO-220-2	FTO-220-2
Basic Ordering Unit (pcs)	1000	1000
Normal Package Material Ordering Code	FD15U60T4-TO220-2-TU	FD15U60T4F-FTO220F-2-TU
Halogen Free Ordering Code	FD15U60T4-TO220-2-TU-HF	FD15U60T4F-FTO220F-2-TU-HF

●Absolute Maximum Ratings (TC =25°C)

PARAMETER	SYMBOL	Value	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Maximum DC blocking Voltage	V_{RM}	600	V
Average Rectified Output Current @Tc=125°C	$I_{F(AV)}$	15	A
Non-Repetitive peak forward surgecurrent (surge applied at rated load conditions half wave, single phase, 60Hz)	I_{FSM}	140	A
Maximum rate of voltage change(at rate VR)	dV/dt	10000	V/uS
Operating Temperature	T_J	-55~+175	°C
Storage Temperature	T_{STG}	-65~+175	°C

●Electronic Characteristics

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Forward Voltage Drop	V _{FM}	@I _F =15A, T _c =25° C	--	--	1.5	V
		@I _F =15A, T _c =150° C	--	--	1.4	
Reverse Current	I _R	V _R =V _{RRM} , T _c =25° C	--	--	5.0	μA
		V _R =V _{RRM} , T _c =25° C	--	--	150	
Reverse recovery time	T _{rr}	I _F =0.5A, I _R =1A, I _{RR} =0.25xI _R	--	--	40	nS

●Thermal Characteristics

PARAMETER	SYMBOL	MAX		UNIT
		TO-220-2	FTO-220-2	
Thermal Resistance Junction-case ¹	R _{thJC}	2.0	4.0	°C/W

• Typical Characteristics

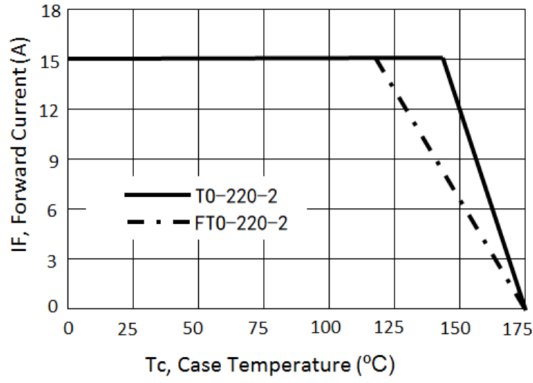


Fig. 1 Forward Current De-Rating Curve

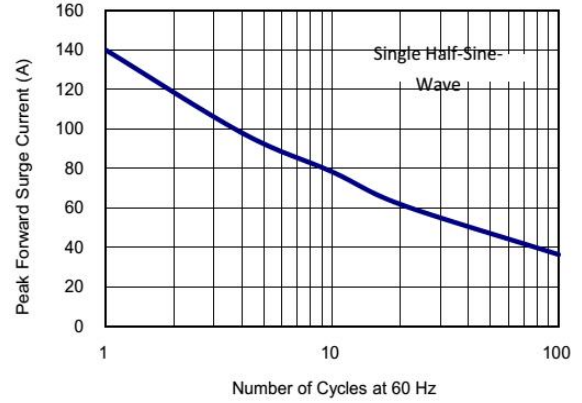


Fig. 2 Peak Forward Surge Current

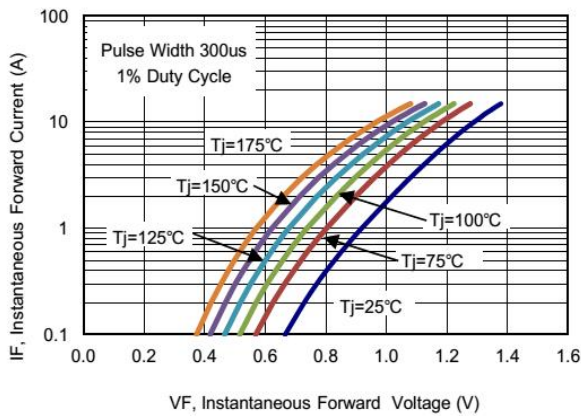


Fig. 3 Instantaneous Forward Characteristics

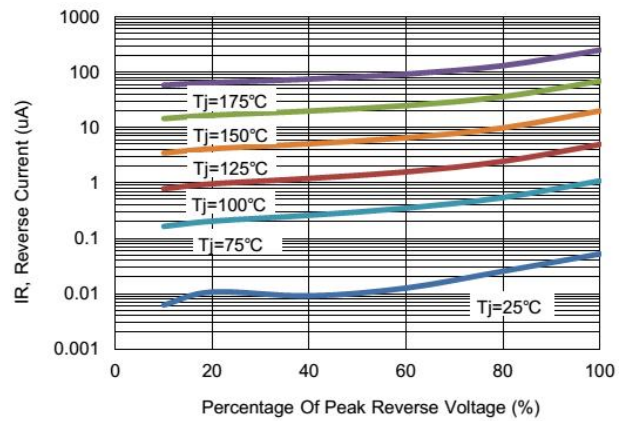


Fig. 4 Reverse Characteristics

• Dimensions (FTO-220-2)

UNIT:mm

SYMBOL	min	max	SYMBOL	min	max
A	4.20	4.80	e1	Typ:5.10	
B	6.40	6.80	F	2.55	2.85
b2	1.00	1.40	H	0.30	0.90
c	OLm S MS		I	1.13	1.53
c2	2.90	3.30	L	13.00	13.80
D	9.90	10.10	L1	3.45	3.75
E	2.50	2.90	L2	--	1.60
E1	14.45	15.05	φP	2.90	3.50

