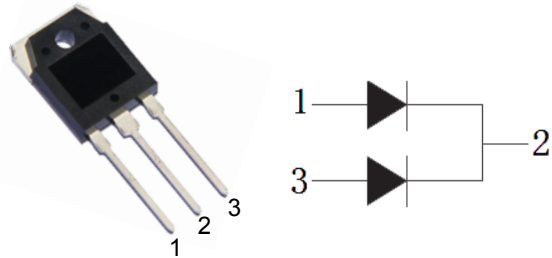


Fast Recover Diode in TO-3P

Features

- Reverse Voltage 600V
- Fast Recovery, trr = 30ns
- Operating Temperature 150 °C
- Avalanche Energy Rated



Mechanical Data

- **Case:** TO-3P (plastic package).
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Applications

- Switch Mode Power Supplies
- Hard Switched PFC Boost Diode
- UPS Free Wheeling Diode
- Motor Drive FWD
- SMPS FWD

Absolute Maximum Ratings

Symbol	Parameter	Value	Units
V_{RRM}	Peak Repetitive Reverse Voltage	600	V
$I_{F(AV)}$	Diode Continuous Forward Current ($T_C=100^{\circ}C$)	30	A
I_{FRM}	Repetitive Peak Surge Current (20kHz Square Wave)	60	A
I_{FSM}	Nonrepetitive Peak Surge Current for Per Diode (Halfwave 1 Phase 50Hz)	180	A
T_J	Operating JunctionTemperatureRange	-55 to +150	°C
T_{STG}	StorageTemperatureRange	-55 to +150	°C

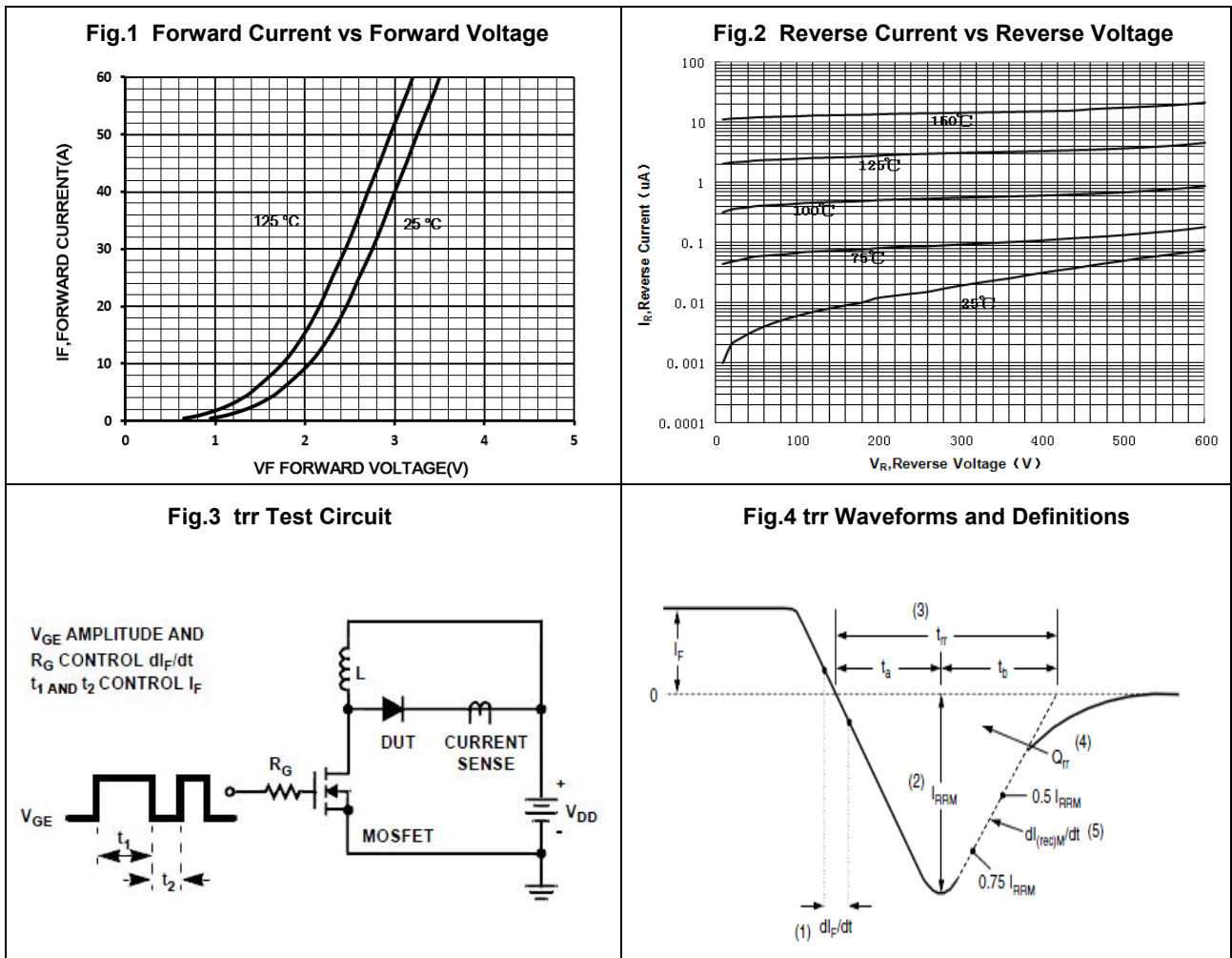
Electrica Specifications (T_J = 25 °C unless otherwise specified for Per Diode)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
V_R	Cathode to Anode Breakdown Voltage	$I_R = 100\mu A$	600			V
V_F	Diode Forward Voltage	$I_F=15A T_C=25^{\circ}C$		1.7	2.0	V
	Diode Forward Voltage	$I_F=15A T_C=125^{\circ}C$		1.5		V
I_{RM}	Maximum Reverse Leakage Current	$V_R=600V T_C=25^{\circ}C$			100	μA
		$V_R=600V T_C=125^{\circ}C$			1	mA

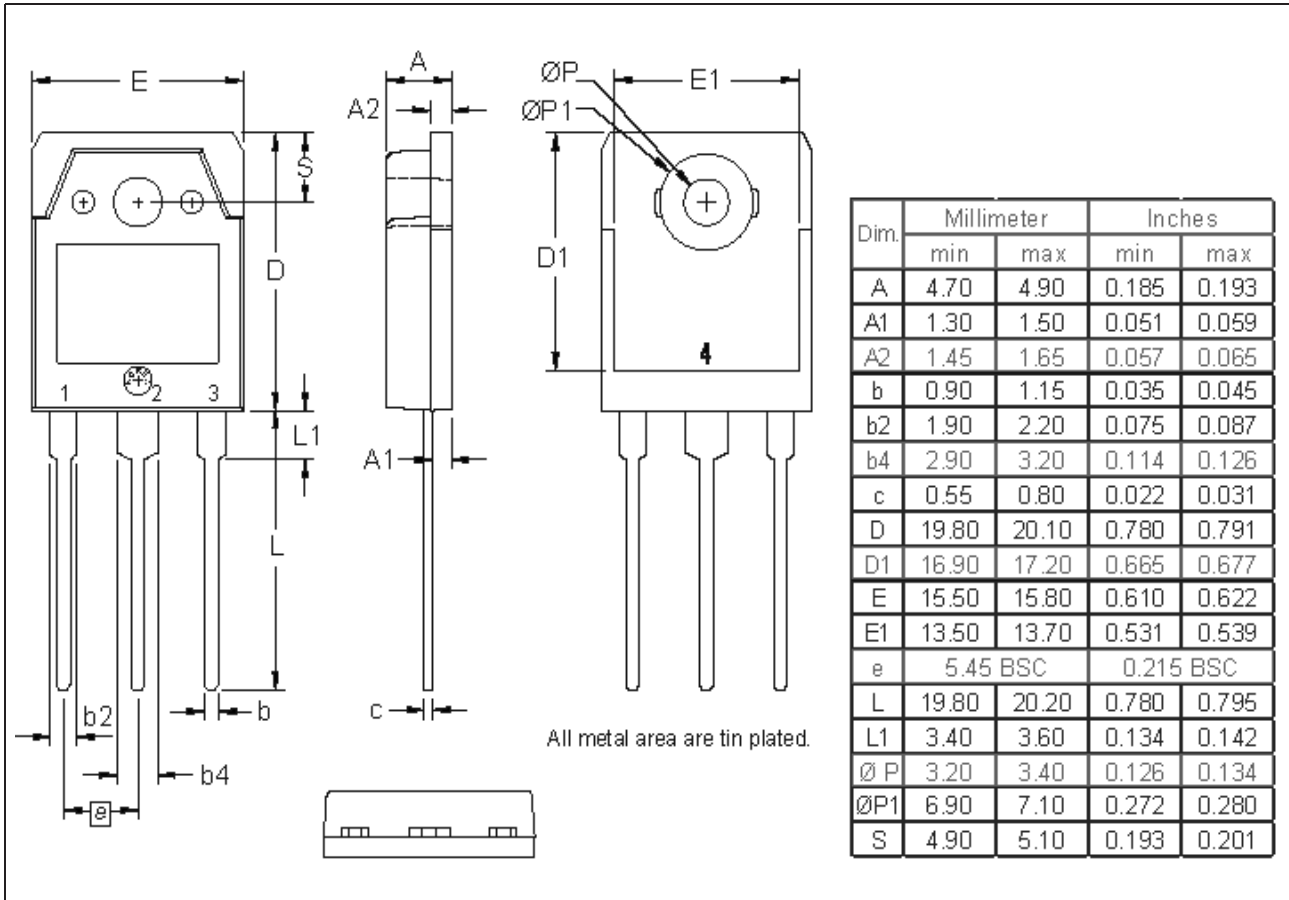
Dynamic Recovery Characteristics ($T_C=25^{\circ}C$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
I_{RRM}	Diode Peak Reverse Recovery Current	$V_{DD}=30V; I_F=1A;$ $di/dt=100A/\mu s;$ See Fig.4		1.49		A
Q_{rr}	Reverse recovery charge (Area Under the Curve Defined by I_{RRM} and t_{rr}).			24		nc
t_{rr}	Diode Reverse Recovery Time			30		ns
S	$S= t_b/t_a$			0.7		
I_{RRM}	Diode Peak Reverse Recovery Current	$V_{DD}=400V; I_F=15A;$ $di/dt=500A/\mu s;$ See Fig.4		9.1		A
Q_{rr}	Reverse recovery charge (Area Under the Curve Defined by I_{RRM} and t_{rr}).			212		nc
t_{rr}	Diode Reverse Recovery Time			42		ns
S	$S= t_b/t_a$			1.13		

Typical Characteristics ($T_{amb} = 25^{\circ}C$ unless otherwise specified)



Package Dimensions



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
CXD3060ADU	TO-3P	Tube/BOX	2000pcs / BOX	

Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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