HYPERFAST RECOVERY RECTIFIERS	REVERSE VOLTAGE 1200 Volts FORWARD CURRENT 15 Amperes

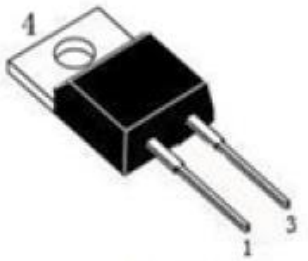
FEATURES

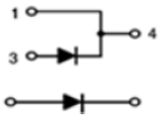
- Low forward voltage drop
- Excellent high temperature stability
- Fast switching capability
- Low reverse current
- High Current Capability and Low Forward Voltage Drop

MECHANICAL DATA

- Case: TO-220AC
- Polarity: Cathode Band

TO-220AC





1、CATHODE

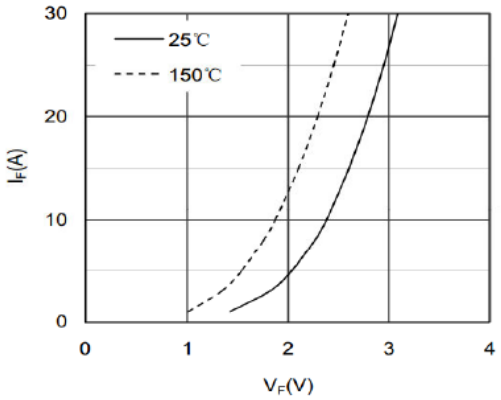
3、ANODE

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25˚C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

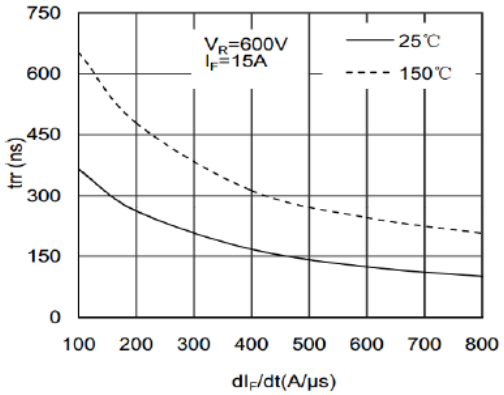
Characteristics		Symbol	UF15S12ST		Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	1200		V
Maximum DC blocking voltage		V_{DC}	1200		V
Average Forward Rectified Current Tc=110°C, Duty=0.5 (per leg)		$I_{F(AV)}$	15		A
Peak Repetitive Forward Current Tc=110°C, Duty=0.5		I_{FM}	21		A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load		I_{FSM}	200		A
			Typ.	Max.	
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_J=25°C	I_R		10	μA
	T_J=150°C			1	mA
Maximum Instantaneous Forward Voltage at 15A	T_J=25°C	V_F	2.6	3.3	V
	T_J=150°C		2.1		
Reverse Recovery Time (IF=1A,VR=30V,diF/dt=-200A/μs)		Trr	25	35	nS
Reverse Recovery Time (IF=15A,VR=600V,diF/dt=-200A/μs) TJ=150°C		Trr	480		nS
Reverse Recovery Charge (IF=15A,VR=600V,di_F/dt=-200A/μs) T_J=150°C		Qrr	1150		nC
Max. Reverse Recovery Current (IF=15A,VR=600V,di_F/dt=-200A/μs) T_J=150°C		I_{RRM}	6.5		A
Power Dissipation		P_D	100		W
Typical Thermal Resistance Junction to Case		$R_{\theta JC}$	1.5		°C/W
Junction Temperature Range		T_J	-55 to +175		°C
Storage Temperature Range		T_{STG}	-55 to +150		°C

<APPLICATIONS>:
- Freewheeling, Snubber, Clamp
- Inversion Welder
- PFC
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- UPS

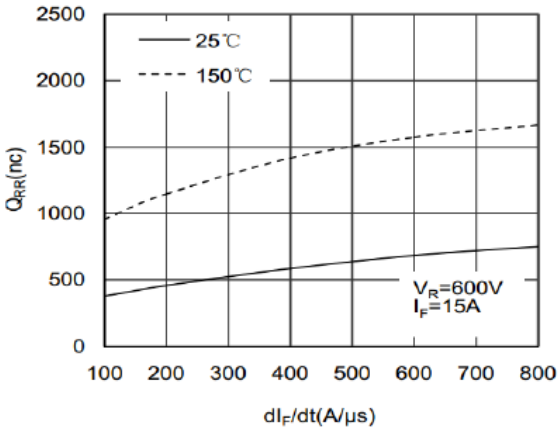
Rating and Characteristic Curves



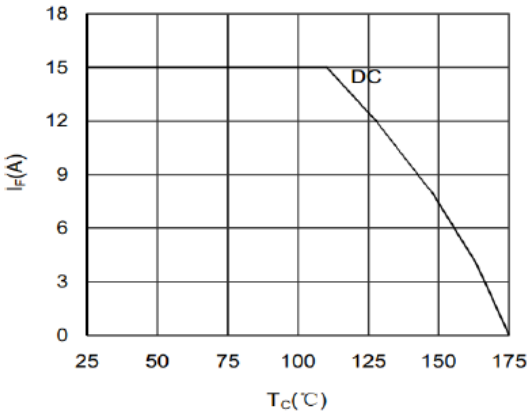
Forward Voltage Drop vs Forward Current



Reverse Recovery Time vs dIF/dt

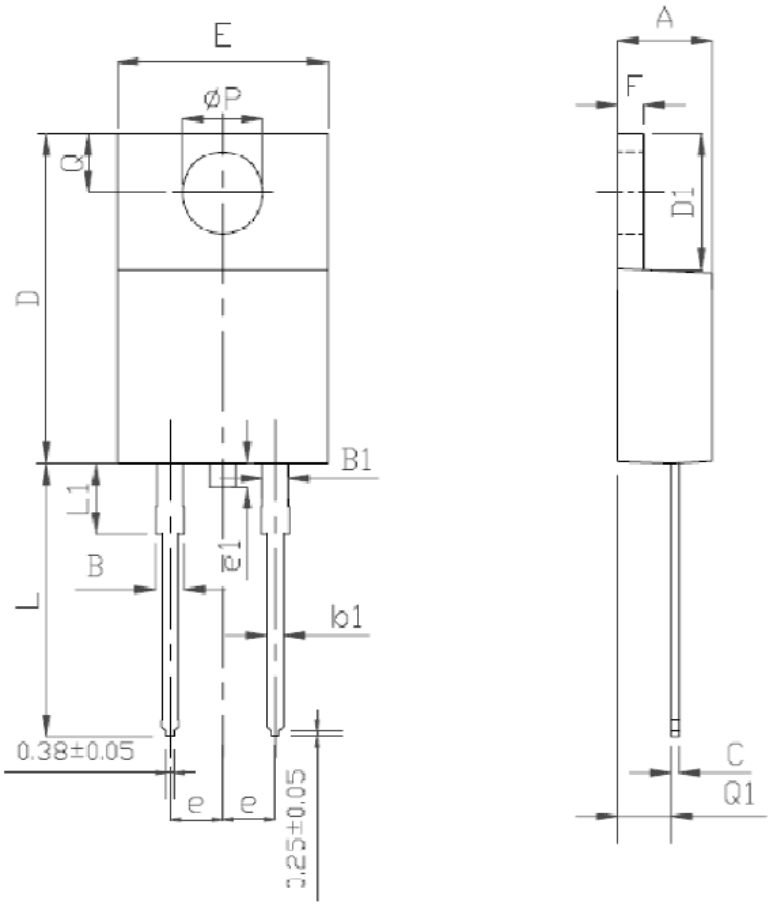


Reverse Recovery Charge vs dIF/dt



Forward current vs Case temperature

TO-220AC MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	4		4.8	e		2.54	
B	1.2		1.4	e1	1		1.5
B1	1		1.4	F	1.1		1.4
b1	0.65		1	L	12.5		14.5
c	0.4		0.55	L1	3	3.5	4
D	15		16.5	ΦP		3.8	
D1	5.9		6.9	Q	2.5		3
E	9.9		10.7	Q1	2		2.9