

**Features**

- 
- 
- 
- 
- 
- RoHS Compliant
- JEDEC Qualification


**Applications**

- General Rectification

Device	Package	Marking	Remark
TDPF20B60	TO-220F-2L	TDPF20B60	RoHS

**Absolute Maximum Ratings**

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	600	V
Reverse Blocking Voltage	$V_R$	600	V
Average Rectified Forward Current	$T_C = 49$ $I_{F(AV)}$	20	A
Non-Repetitive Peak Surge Current 60Hz Single Half Sine Wave	$I_{FSM}$	200	A
Storage Temperature Range	$T_{STG}$	-55 ~ 150	

**Thermal Characteristics**

Parameter	Symbol	Value	Unit
Maximum Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	2.5	/W

**Electrical Characteristics**  $T_C=25$  , unless otherwise noted

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
<b>STATIC</b>						
Forward Voltage Drop	$V_F$	$I_F=20A, T_C=25\text{ }^\circ\text{C}$	--	1.6	2.1	V
		$I_F=20A, T_C=150\text{ }^\circ\text{C}$	--	1.4	1.9	V
Reverse Leakage Current	$I_R$	$V_R = 600V$	--	--	100	$\mu\text{A}$

**DYNAMIC**

Reverse Recovery Time	$t_{rr}$	$V_R = 400V, I_F = 20A,$ $di/dt=200A/\mu\text{s}$	$T_C=25\text{ }^\circ\text{C}$	--	56	--	ns
			$T_C=150\text{ }^\circ\text{C}$	--	140	--	
Reverse Recovery Current	$I_{rr}$		$T_C=25\text{ }^\circ\text{C}$	--	4.9	--	A
			$T_C=150\text{ }^\circ\text{C}$	--	8.6	--	
Reverse Recovery Charge	$Q_{rr}$		$T_C=25\text{ }^\circ\text{C}$	--	158	--	nC
			$T_C=150\text{ }^\circ\text{C}$	--	796	--	

Fig.1 Forward voltage drop vs. Forward current

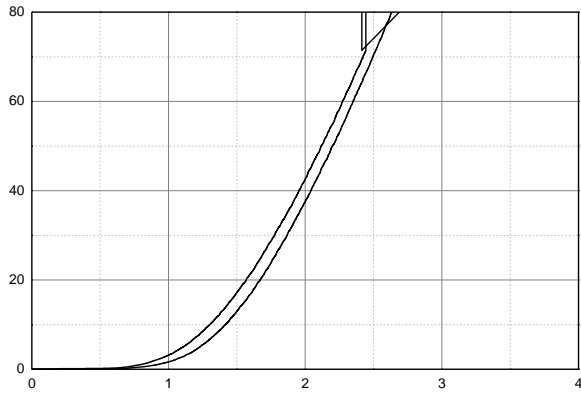


Fig 2. Reverse voltage vs. Reverse current

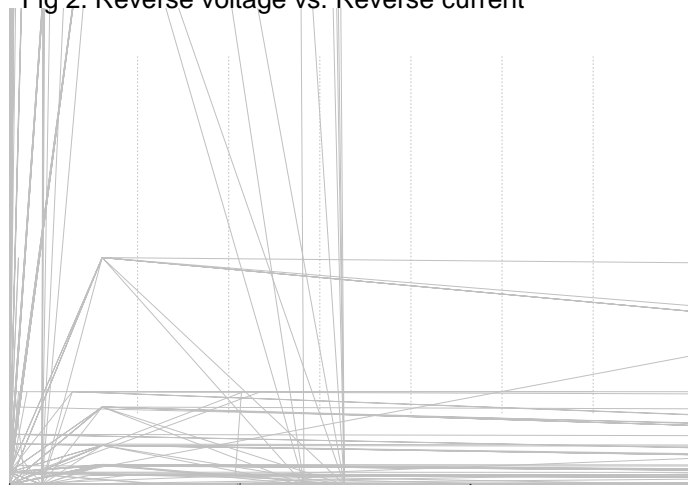


Fig 3. Junction capacitance

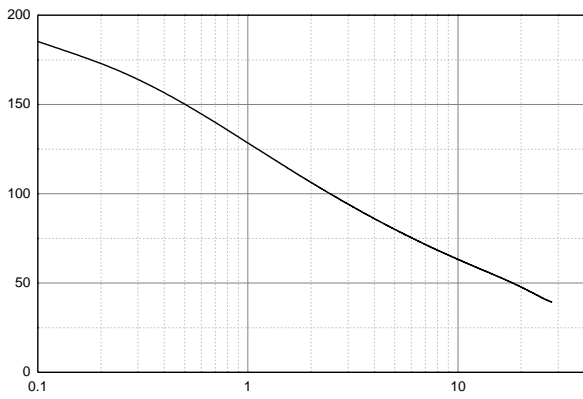


Fig 4. Reverse recovery time vs. di/dt



Fig 5. Reverse recovery current vs. di/dt

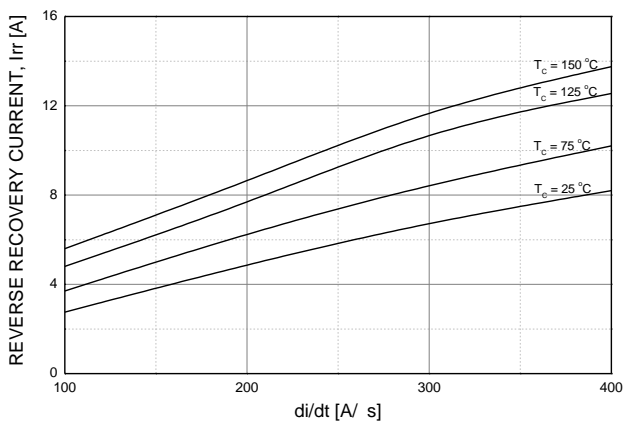
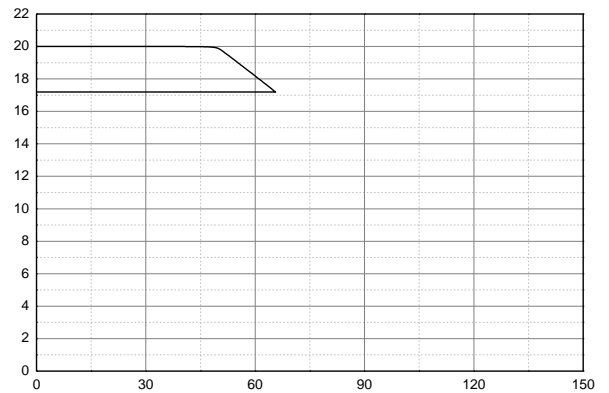
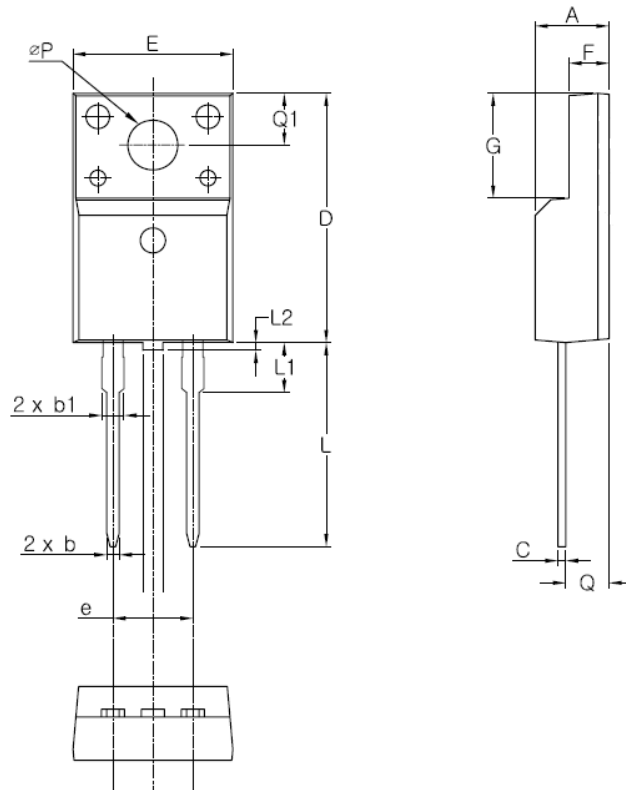


Fig 6. Case temperature vs. Forward current



**TO-220F-2L MECHANICAL DATA**

**Disclaimer :**

TRinno technology reserves the right to make changes without notice to products herein to improve reliability, performance, or design. The information given in this document is believed to be accurate and reliable. However, it shall in no event be regarded as a guarantee of conditions and characteristics. With respect to any information regarding the