

ESTF8SS120C/S/D/P

Fast Recovery Diode

Features

- Repetitive Reverse Voltage : $V_{RRM} = 1200V$
- Forward Voltage Drop : $V_F(\text{max.}) = 1.65V$
- Average Forward Current : $I_F(\text{AV.}) = 8A @ T_c = 100^\circ C$
- Fast Reverse Recovery Time : $t_{rr}(\text{typ.}) = 70ns$
- RoHS product

Applications

- Switching Power Supplies
- Power Switching Circuits
- General Purpose
- UPS



Absolute Maximum Ratings @ $T_c=25^\circ C$

Symbol	Parameter	ratings	Unit
V_{RRM}	Repetitive peak reverse voltage @50 μA	1200	V
V_{RWM}	Working Peak Reverse Voltage	1200	V
$I_{F(AV)}$	Average forward current @ $T_c=100^\circ C$	8	A
I_{FSM}	Peak one Cycle Surge Forward @20KHz	16	A
T_J	Junction Temperature	-50~+150	$^\circ C$
T_{STG}	Storage temperature range	-50~+150	$^\circ C$

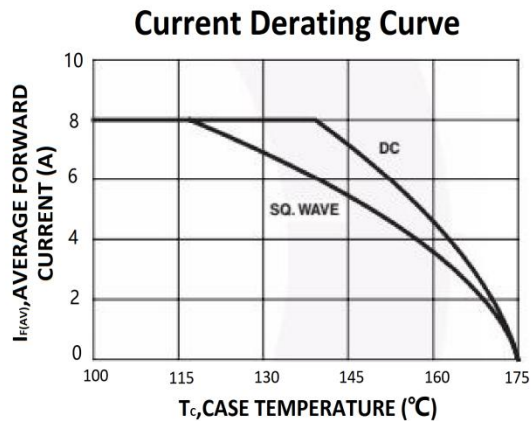
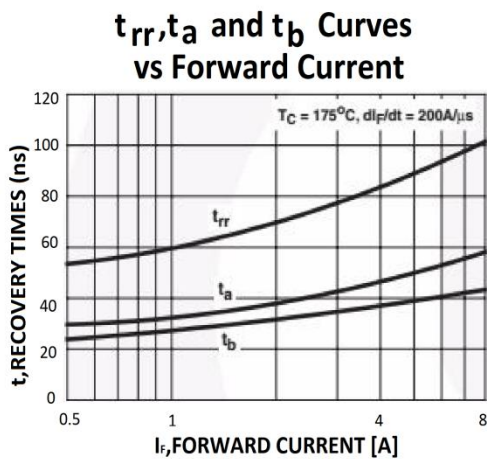
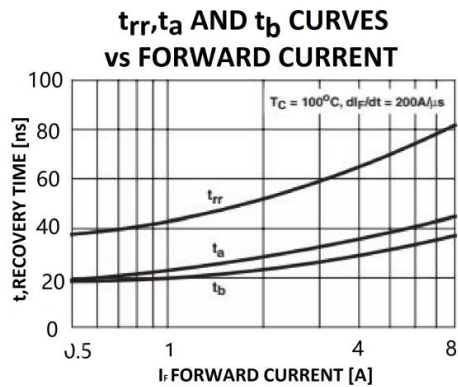
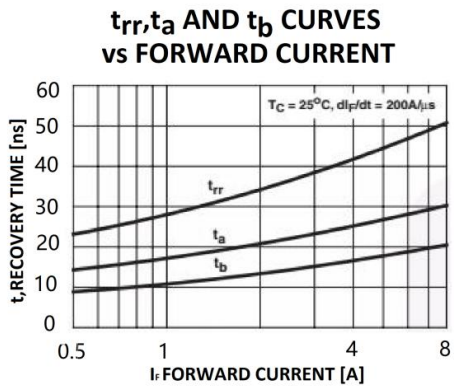
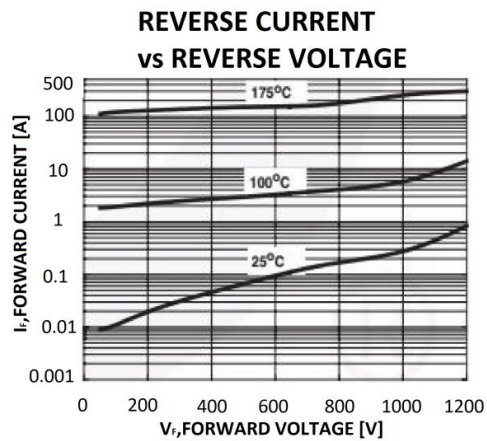
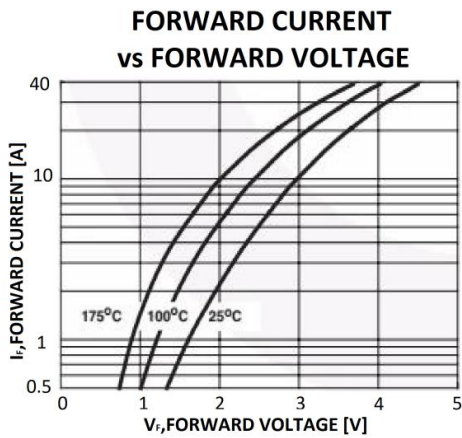
Electrical Specifications @ $T_c=25^\circ C$

Symbol	Parameter		Ratings			Unit
			Min	Typ	Max	
I_R	$T_J = 25^\circ C$	$V_R = V_{RRM}$			100	μA
	$T_J = 125^\circ C$				500	μA
V_F	$T_J = 25^\circ C$	$I_F = 8A$			1.65	V
	$T_J = 125^\circ C$				1.2	V
T_{rr}	$I_F = 1A, V_R = 30V, di_F/dt = -200A/\mu s$			70		ns
$R_{th(j-c)}$	Thermal resistance from junction to case				0.9	$^\circ C/W$
					2	
					2.3	
					5.2	

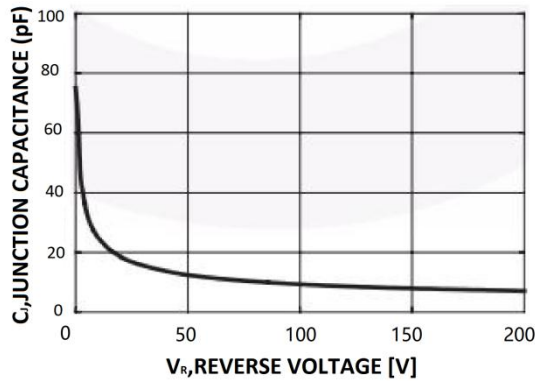
Order Information

Order codes	Silkscreen	Package	Packaging
ESTF8SS120C	F8S120C	TO-220C-2L	
ESTF8SS120S	F8S120S	TO-247-2L	
ESTF8SS120D	F8S120D	TO-252	
ESTF8SS120P	F8S120P	TO-220F-2L	

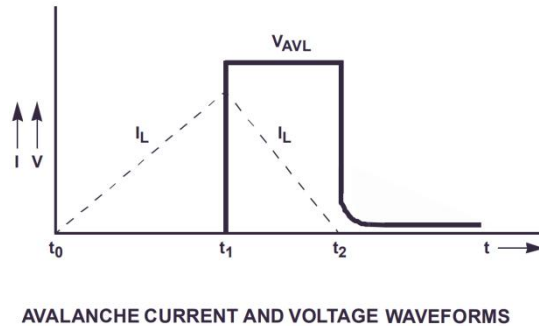
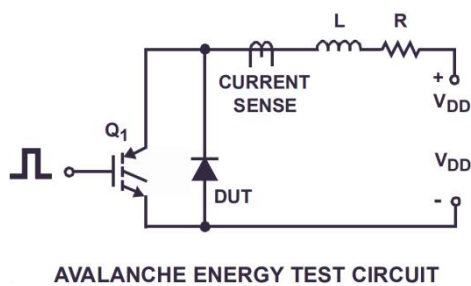
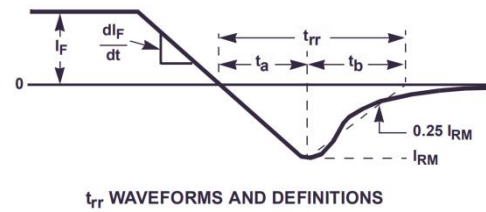
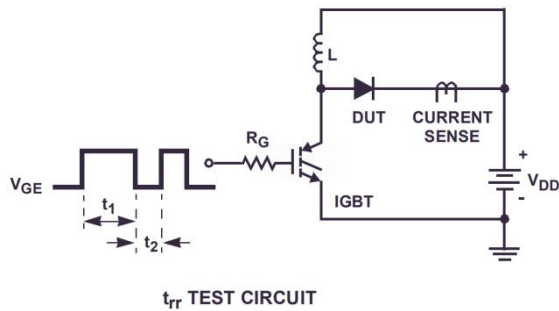
Typical Performance Curves



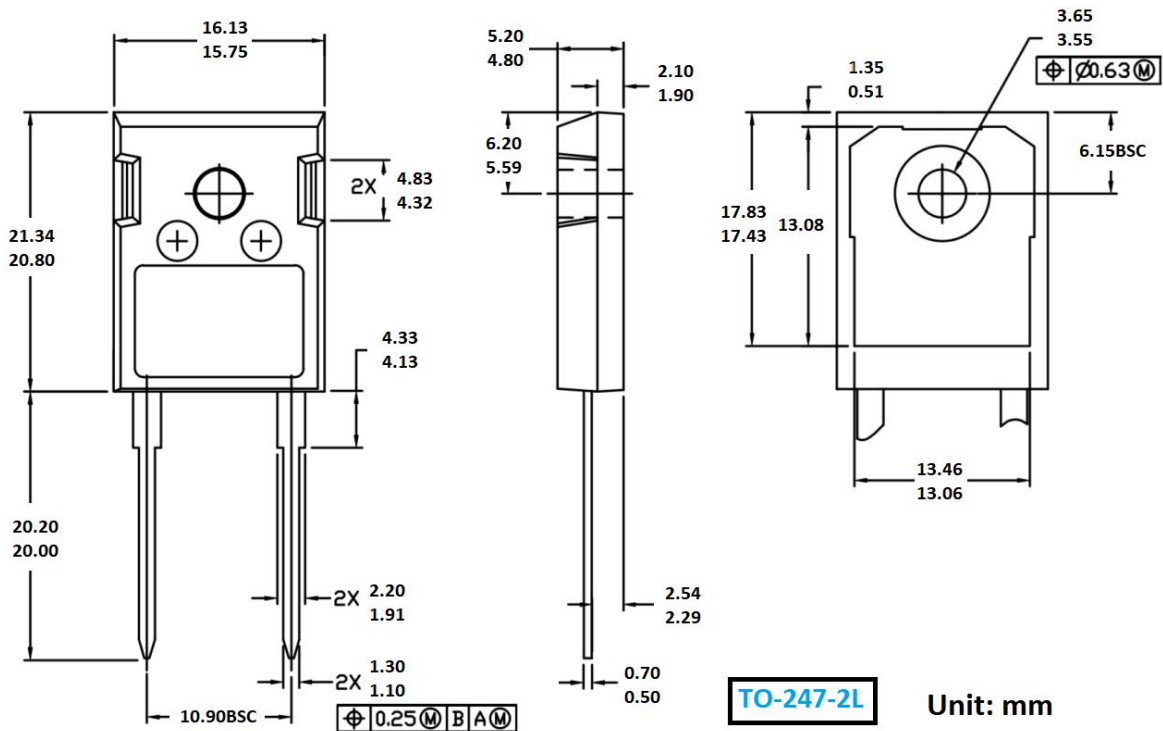
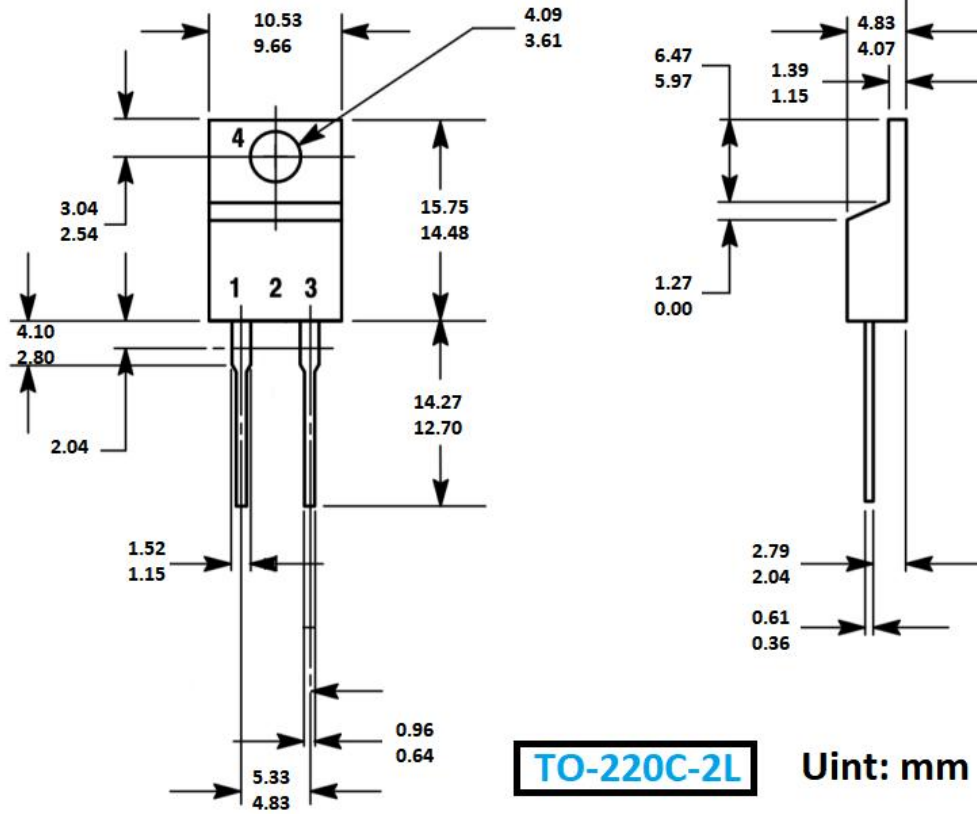
Junction Capacitance vs Reverse Voltage

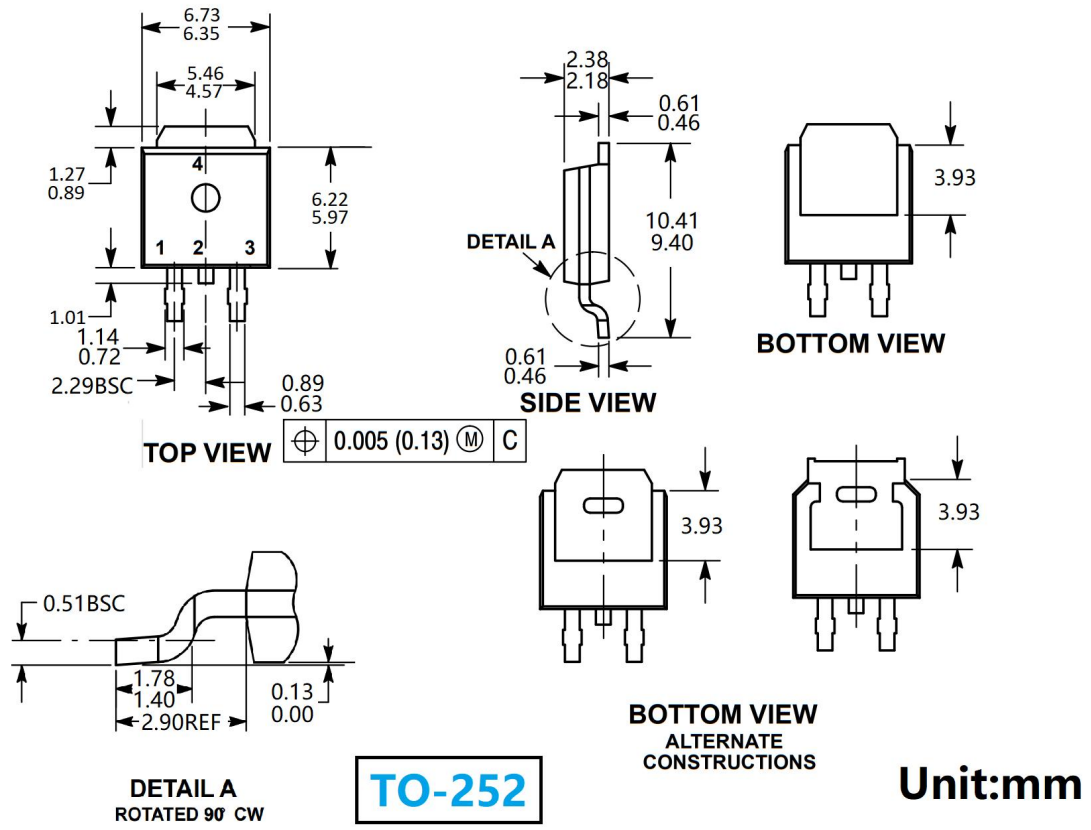


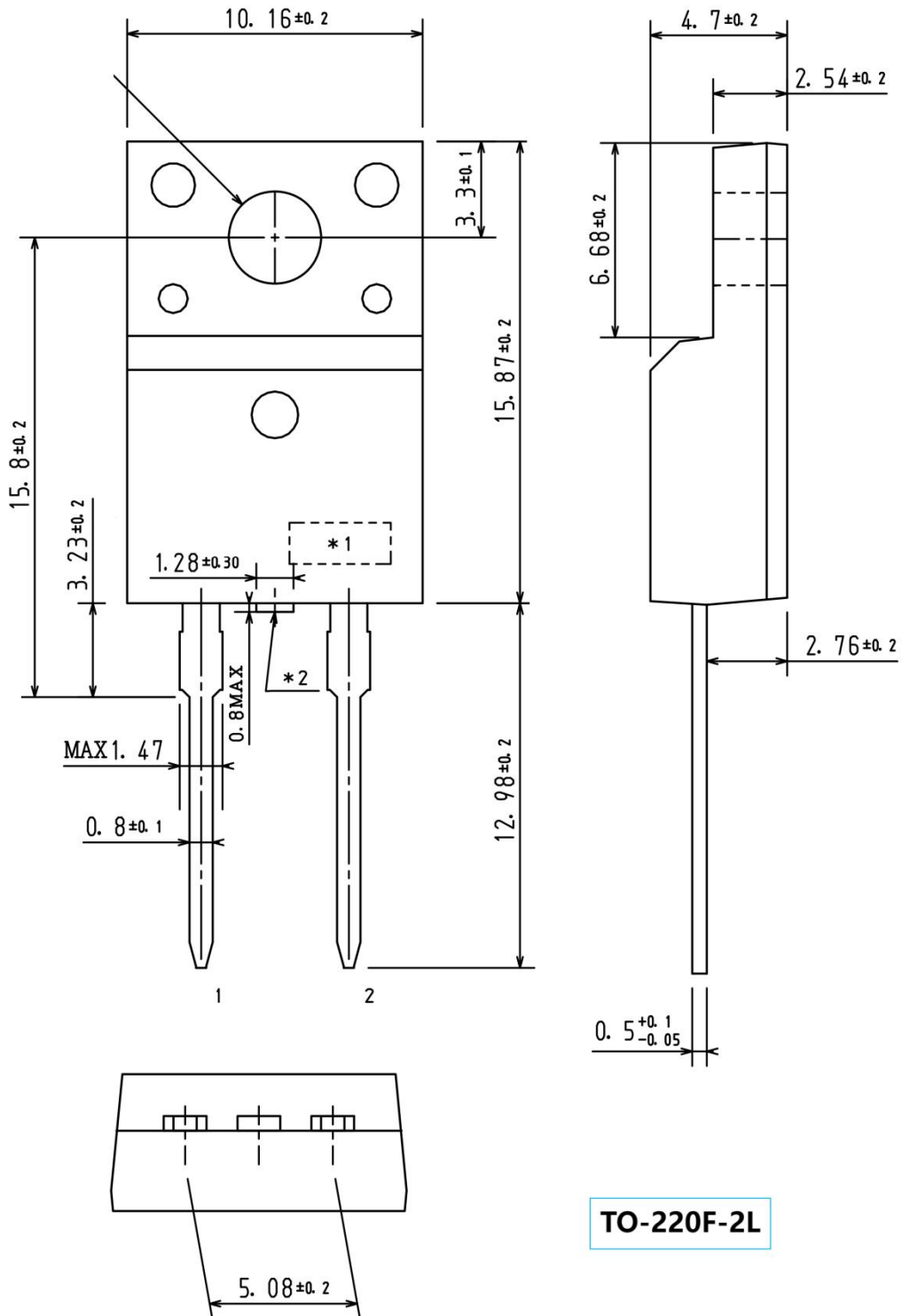
Test Circuits and Waveforms



Package







TO-220F-2L