

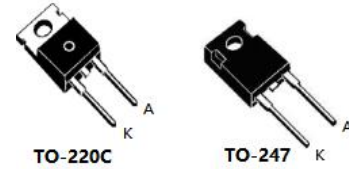
# ESF8SS120C/S

## Fast Recovery Diode

### Features

- Repetitive Reverse Voltage :  $V_{RRM} = 1200V$
- Forward Voltage Drop :  $V_F(\text{typ.}) = 3.2V$
- Average Forward Current :  $I_{F(AV.)} = 8A @ T_c = 100^\circ C$
- Fast Reverse Recovery Time :  $t_{rr}(\text{typ.}) = 70ns$
- RoHS product

### Package



ESF8SS120C

ESF8SS120S

### 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 @ $50\mu A$	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 @ $t=10ms$	270	A
$T_j$	Junction Temperature	-50~+150	$^\circ C$
$T_{STG}$	Storage temperature range	-50~+151	$^\circ C$

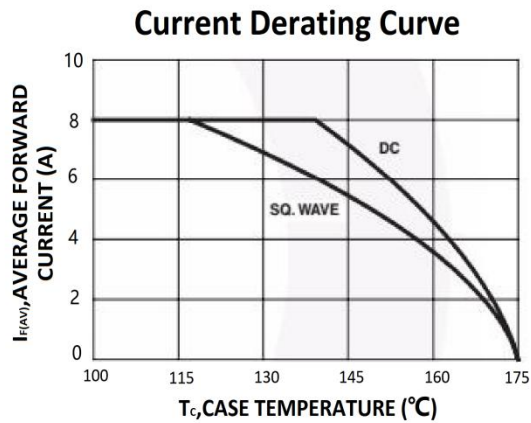
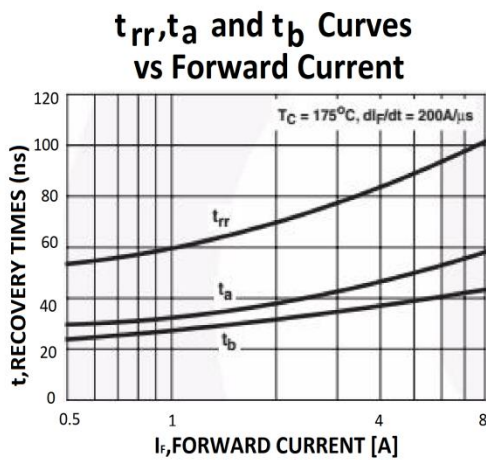
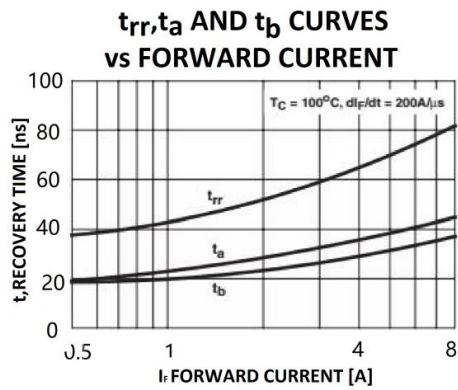
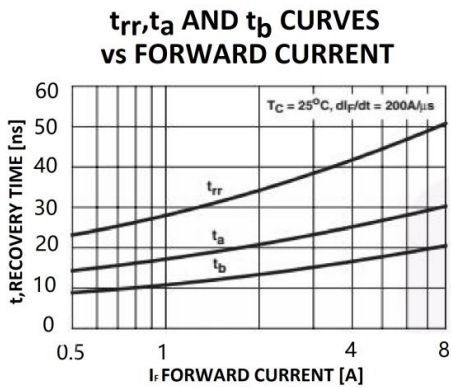
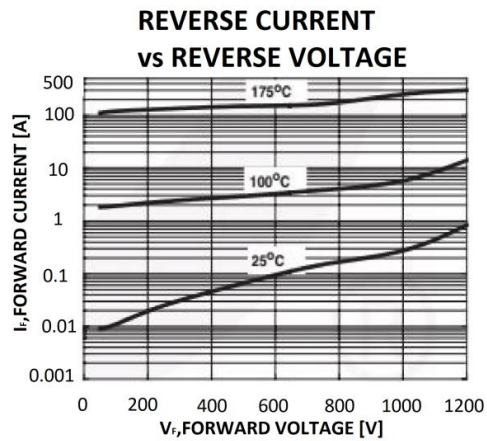
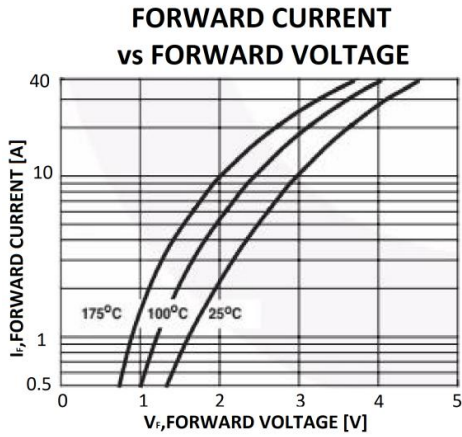
### Electrical Specifications @ $T_c=25^\circ C$

Symbol	Parameter		Ratings			Unit
			Min	Typ	Max	
$I_R$	$T_j=25^\circ C$	$V_R=V_{RRM}$			100	$\mu A$
	$T_j=125^\circ C$				500	$\mu A$
$V_F$	$T_j=25^\circ C$	$I_F=8A$			3.2	V
	$T_j=125^\circ C$				2.6	V
$T_{rr}$	$I_F=1A, V_R=30V, diF/dt=-200A/\mu s$				55	ns
$R_{th(j-c)}$	Thermal resistance from junction to case	TO-247-2L			0.9	$^\circ C/W$
$R_{th(j-c)}$		TO-220C-2L			2	$^\circ C/W$

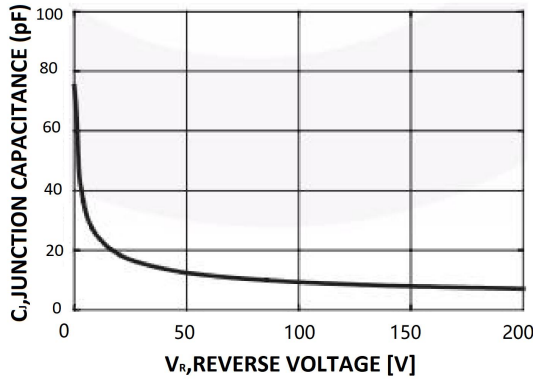
Order Information

Order codes	Silkscreen	Package	Packaging
ESF8SS120C	F8S120C	TO-220C-2L	
ESF8SS120S	F8S120S	TO-247-2L	

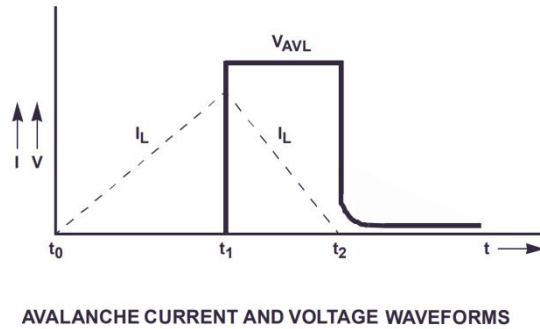
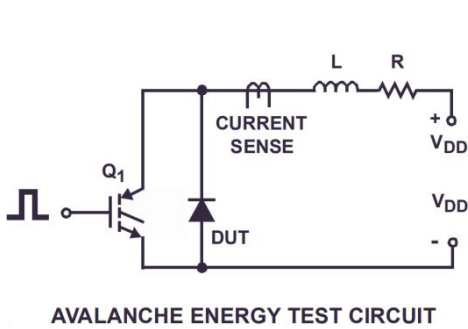
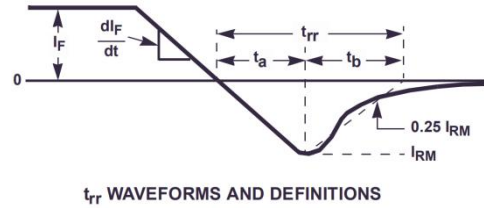
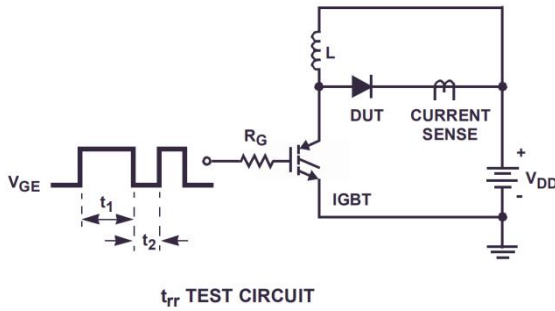
Typical Performance Curves



**Junction Capacitance vs Reverse Voltage**



**Test Circuits and Waveforms**



Package

