

# ESTF15SS60SC

## Super Fast Recovery Diode

### Features

- Hyperfast Recovery  $t_{rr} = 40 \text{ ns}$  (@  $I_F = 15 \text{ A}$ )
- Max Forward Voltage,  $V_F = 2.1 \text{ V}$  (@  $T_C = 25^\circ\text{C}$ )
- 600 V Reverse Voltage and High Reliability
- Avalanche Energy Rated
- RoHS Compliant



### Applications

- Switching Power Supplies
- Power Switching Circuits
- General Purpose



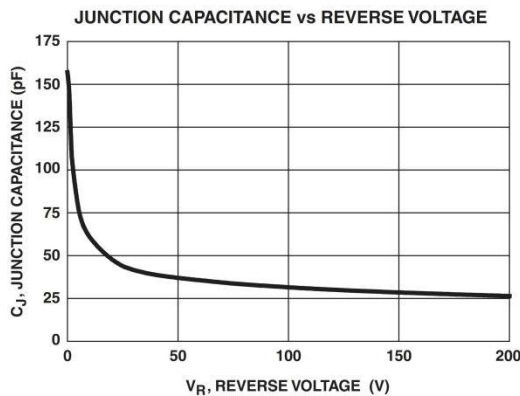
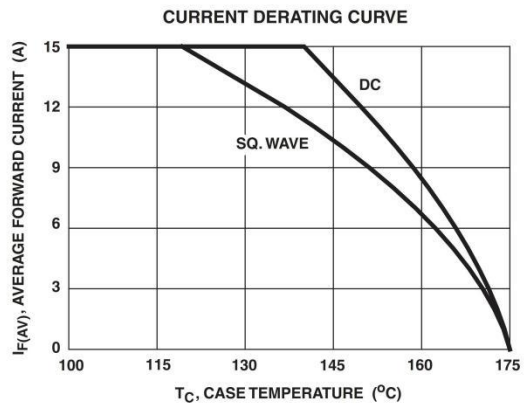
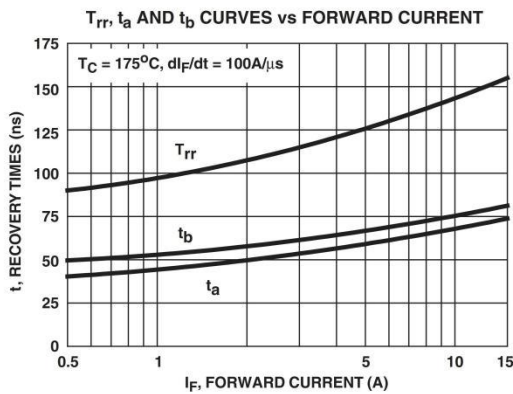
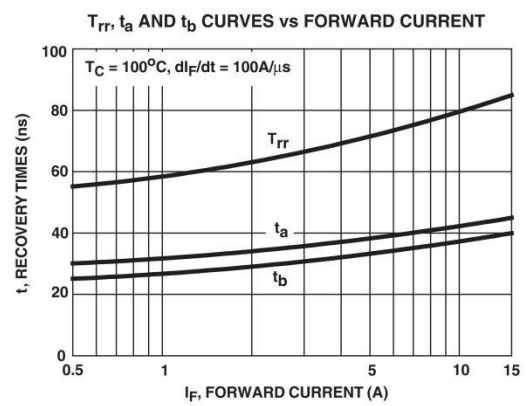
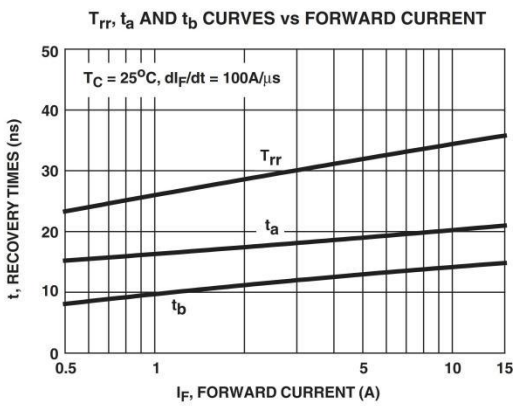
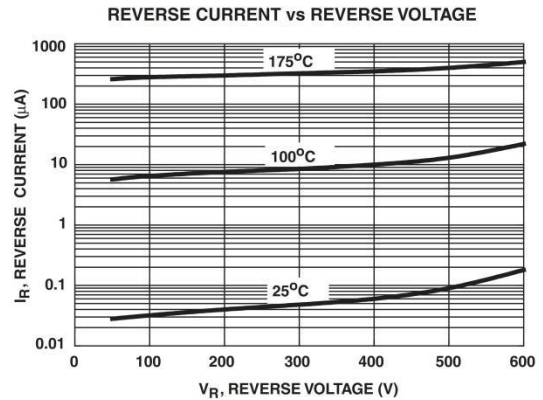
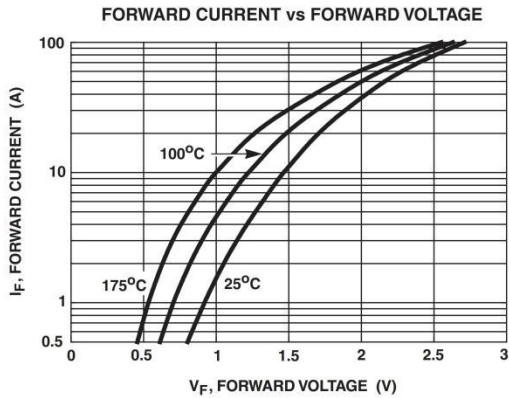
### Absolute Maximum Ratings @ $T_C=25^\circ\text{C}$

Symbol	Parameter	ratings	Unit
$V_{RRM}$	Repetitive peak reverse voltage @50 $\mu\text{A}$	600	V
$V_{RWM}$	Working Peak Reverse Voltage	600	V
$I_{F(AV)}$	Average forward current @ $T_C=110^\circ\text{C}$	15	A
$I_{FSM}$	Peak one Cycle Surge Forward @ $t=8.3\text{ms}$	30	A
$E_{AVL}$	Avalanche Energy(per diode) (1A, 40mH)	20	mJ
$T_j$	Junction Temperature	-40~+150	$^\circ\text{C}$
$T_{STG}$	Storage temperature range	-65~+175	$^\circ\text{C}$

### Electrical Specifications @ $T_C=25^\circ\text{C}$

Symbol	Parameter		Ratings			Unit
			Min	Typ	Max	
$I_R$	$T_j=25^\circ\text{C}$	$V_R=V_{RRM}$			100	$\mu\text{A}$
	$T_j=125^\circ\text{C}$				500	$\mu\text{A}$
$V_F$	$T_j=25^\circ\text{C}$	$I_F=15\text{A}$			2.1	V
	$T_j=125^\circ\text{C}$				1.7	V
$T_{rr}$	$I_F=1\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$				35	ns
$T_{rr}$	$I_F=15\text{A}, V_R=30\text{V}, di_F/dt=-100\text{A}/\mu\text{s}$				40	ns
$Q_{rr}$	$I_F=15\text{A}, di_F/dt=-100\text{A}/\mu\text{s}$				40	nC
$R_{th(j-c)}$	Thermal resistance from junction to case	TO-220AC		1.5		$^\circ\text{C}/\text{W}$

# Typical Performance Curves



Package

