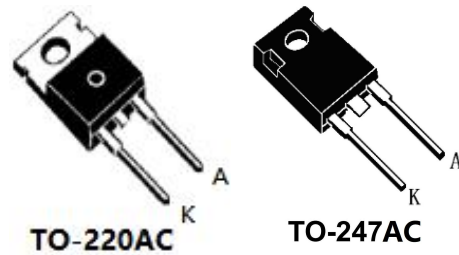


ESTF30SS60SC

Super Fast Recovery Diode

Features

- Ultrafast Recovery Time
- Low Recovery Loss
- Low Forward Voltage
- Low Leakage Current



Applications

- Switching Power Supplies
- Snubber diode
- Antiparalle Diode for high frequency Switching Devices



Absolute Maximum Ratings @ T_c=25°C

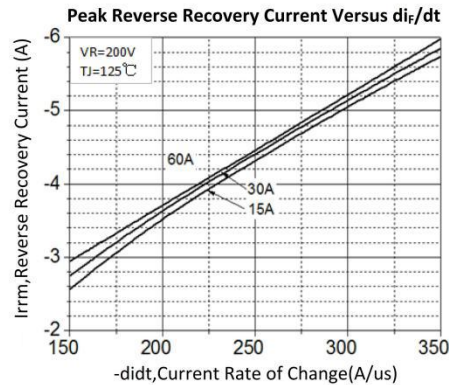
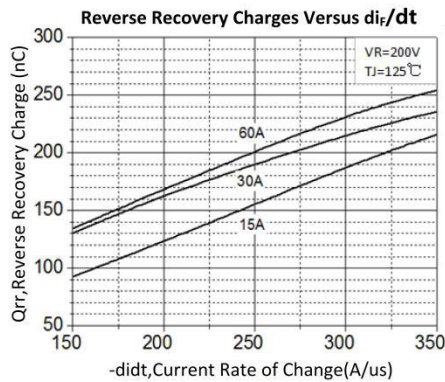
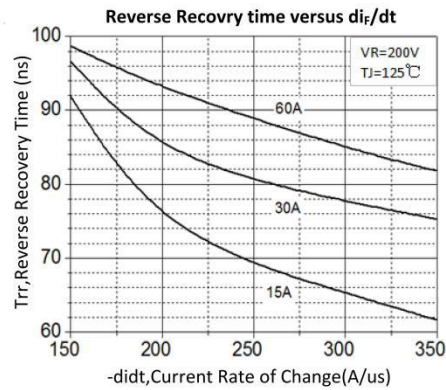
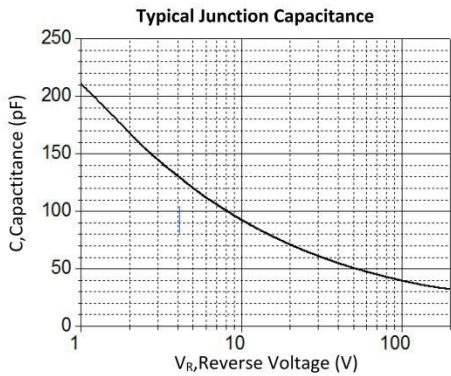
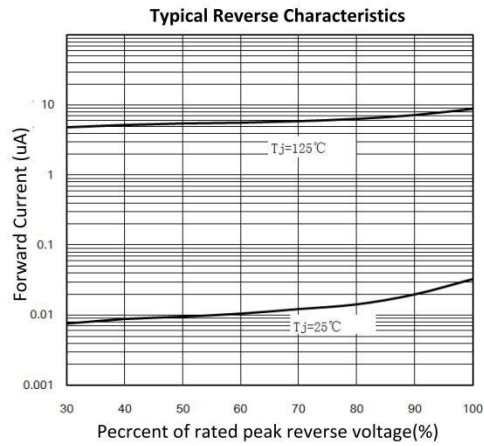
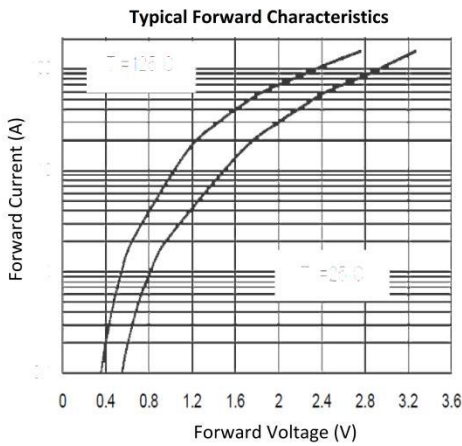
Symbol	Parameter	ratings	Unit
V _{RRM}	Repetitive peak reverse voltage @50μA	600	V
V _{RWM}	Working Peak Reverse Voltage	600	V
I _{F(AV)}	Average forward current @T _c =110°C	30	A
I _{FSM}	Peak one Cycle Surge Forward @t=8.3ms	300	A
E _{AVL}	Avalanche Energy(per diode) (1A, 40mH)	20	mJ
T _j	Junction Temperature	-55~+175	°C
T _{STG}	Storage temperature range	-55~+175	°C

Electrical Specifications @ T_c=25°C

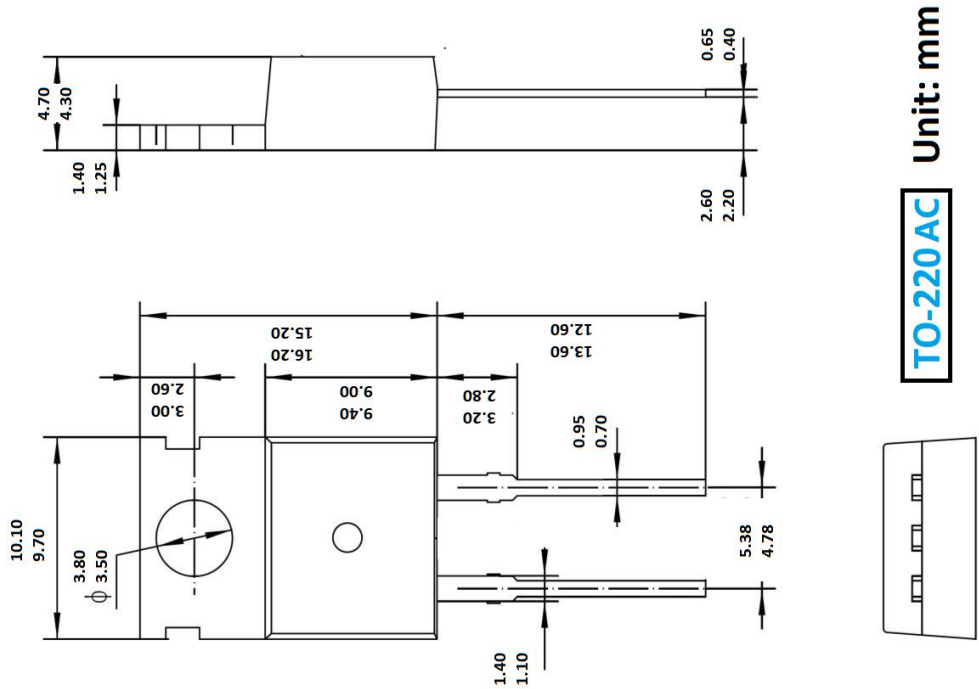
Symbol	Parameter		Ratings			Unit
			Min	Typ	Max	
I _R	T _j =25°C	V _R =V _{RRM}			10	μA
	T _j =125°C				300	μA
V _F	T _j =25°C	I _F =30A		2.0	2.5	V
	T _j =125°C				2.1	V
T _{rr}	I _F =0.5A, I _R =1A, I _{RR} =0.25A			28	40	ns
T _{rr}	I _F =1A, V _R =30V, di _F /dt=-200A/μs			20	25	ns
T _{rr}				30		ns
Q _{rr}	I _F =30A, V _R =200V, di _F /dt=-200A/μs @T _c =25°C			23		nC
I _R RM				1.5		A

T_{rr}			86		ns
Q_{rr}	$I_F=30A, V_R=200V, di_F/dt=-200A/\mu s$ $@T_C=125^\circ C$		160		nC
I_{RRM}			3.7		A
$R_{th(j-c)}$	Thermal resistance from junction to case	TO-220AC	1.2		$^\circ C/W$
$R_{th(j-c)}$	Thermal resistance from junction to case	TO-247AC	0.45		$^\circ C/W$

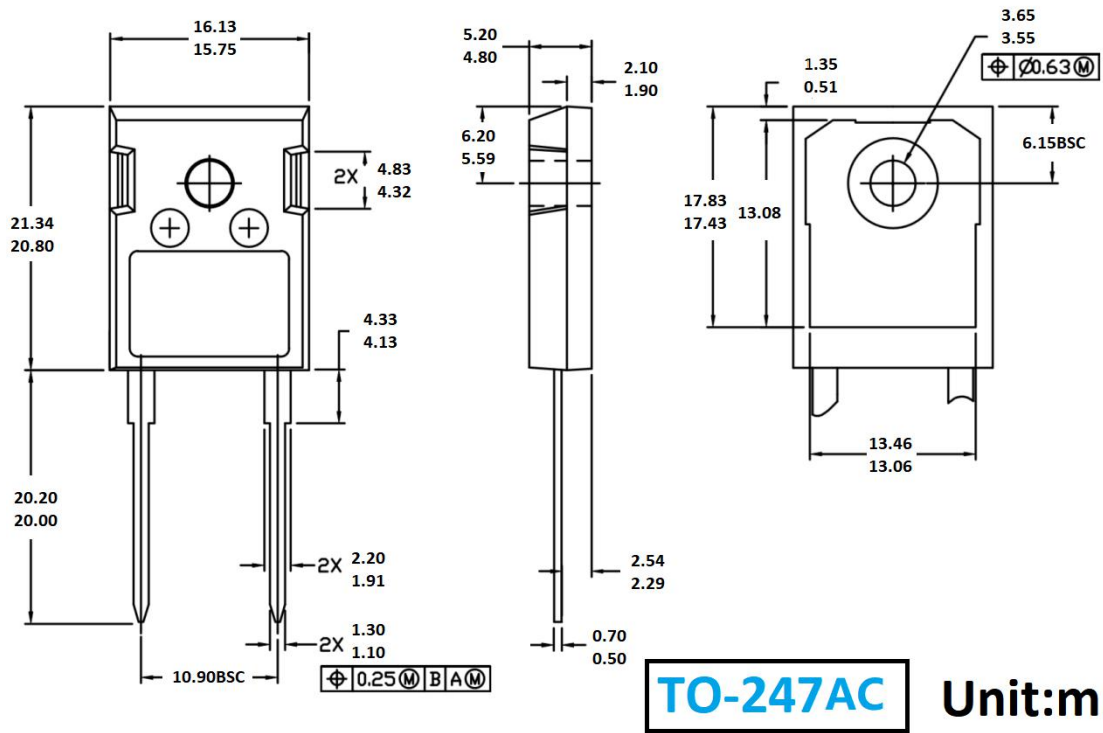
Typical Performance Curves



Package



Unit: mm
TO-220AC



Unit: mm
TO-247AC