

Pb Free Plating Product

F30U60S



30Amperes,600Volts Insulated Ultra Fast Soft Recovery Epitaxial Diode

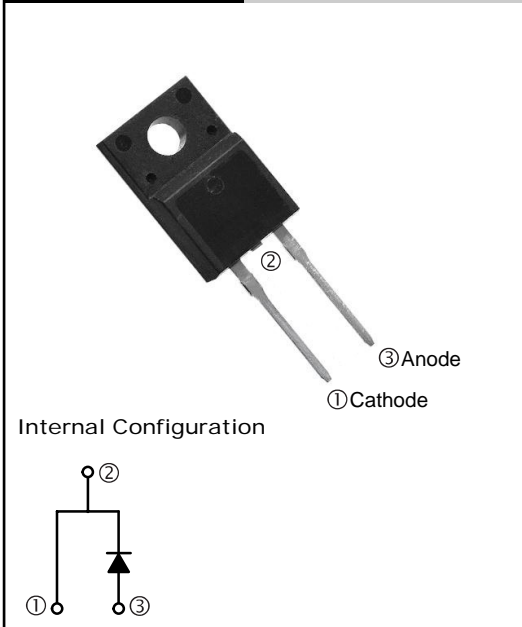
APPLICATION

- Freewheeling, Snubber, Clamp
- Inversion Welder
- PFC
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- UPS

PRODUCT FEATURE

- Ultrafast Recovery Time
- Soft Recovery Characteristics
- 175 Operating Junction Temperature
- Low Forward Voltage
- High Surge Current Capability
- Low Leakage Current

ITO-220AC/TO-220F-2L



GENERAL DESCRIPTION

F30U60S using latest FRED FAB process(planar passivation pellet) with ultrafast and soft recovery characteristics.

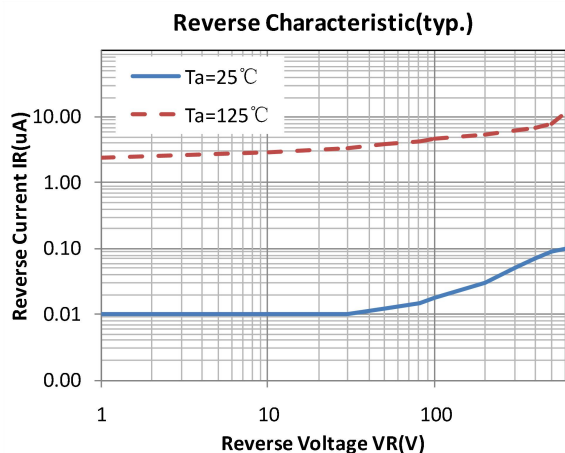
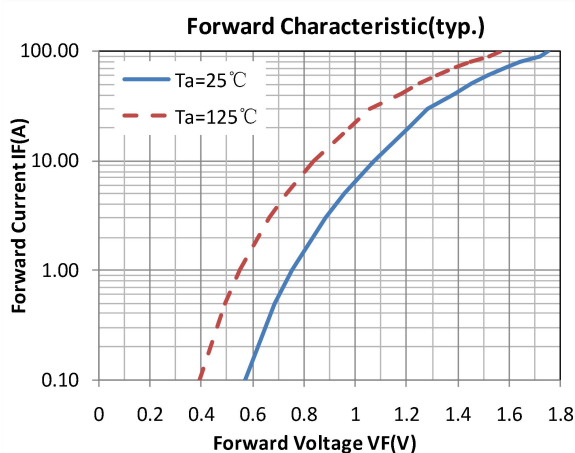
Absolute Maximum Ratings				
Parameter	Symbol	Test Conditions	Values	Units
Repetitive peak reverse voltage	VRRM		600	V
Continuous forward current	IF(AV)	Tc =110°C	30	A
Single pulse forward current	IFSM	Tc =25°C	240	
Maximum repetitive forward current	IFRM	Square wave, 20KHZ	55	
Operating junction	Tj		175	°C
Storage temperatures	Tstg		-55 to +175	°C

Electrical characteristics (Ta=25°C unless otherwise specified)						
Parameter	Symbol	Test Conditions	Min	Typ.	Max.	Units
Breakdown voltage Blocking voltage	V_{BR} , V_R	$I_R=100\mu A$	600			V
Forward voltage (Per Diode)	V_F	$I_F=30A$		1.30	1.60	
		$I_F=30A, T_j=125^\circ C$		1.05	1.40	
Reverse leakage current(Per Diode)	I_R	$V_R=V_{RRM}$			20	μA
		$T_j=150^\circ C, V_R=600V$			200	
Reverse recovery time(Per Diode)	t_{rr}	$I_F=0.5A, I_R=1A, I_{RR}=0.25A$		38	50	ns
		$I_F=1A, V_R=30V, di/dt=200A/us$		28	35	

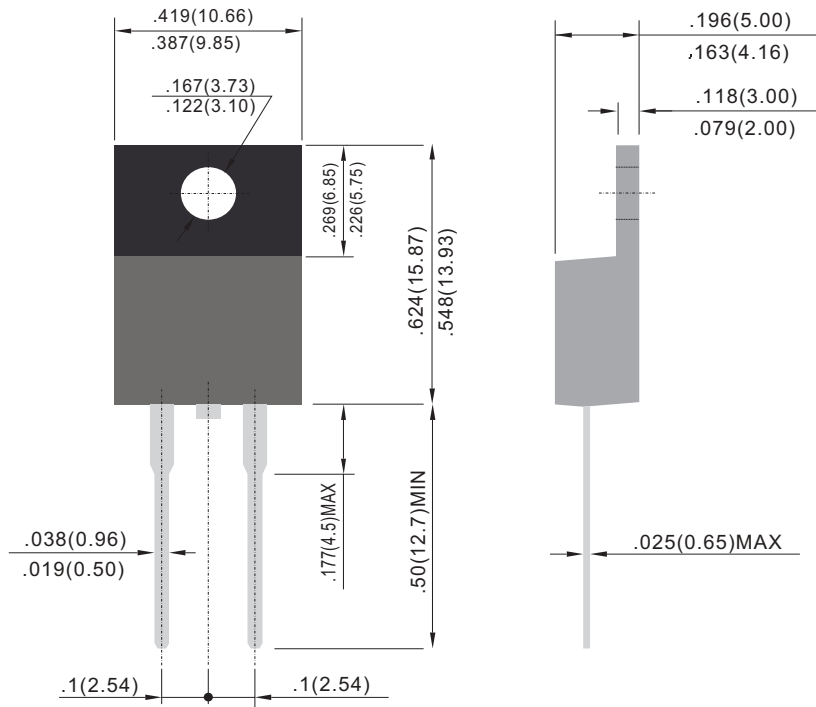
Thermal characteristics

Paramter	Symbol	Typ	Units
Junction-to-Case	$R_{\theta JC}$	2.5	$^\circ C/W$

Electrical performance (typic)



ITO-220AC/TO-220F-2L Package Outline:



Unit : inch (mm)