FAST RECOVERY EPITAXIAL DIODE

600V / 8A
V_F=1.7V @ I_F=8A, t_{rr}=35ns

PRODUCT FEATURES

- Ultrafast Recovery Time
- Soft Recovery Characteristics
- Low Recovery Loss
- Low Forward Voltage
- High Surge Current Capability
- Low Leakage Current

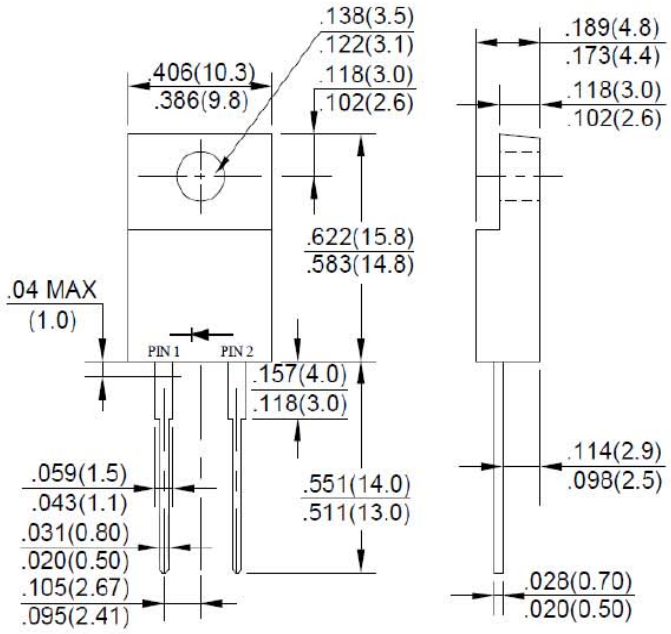
APPLICATIONS

- Converter, PFC
- Freewheeling, Snubber
- UPS, Plating Power Supply
- Inversion Welder

MECHANICAL DATA

- Case : ITO-220AC Molded Plastic
- Epoxy : UL94V-0 rate flame retadant
- Polarity : As Marked

ITO-220AC



Dimensions in inches (millimeter)

ABSOLUTE MAXIMUM RATINGS (TC=25°C unless otherwise specified)

PARAMETER		SYMBOL	VALUES	UNIT
		Marking	D8A06LFT	
Maximum Repetitive Reverse Voltage		V_{RM}	600	V
Average Forward Current	T_C=110°C	$I_{F(AV)}$	8	A
Non-Repetitive Surge Forward Current	t_p=10ms, 50Hz, Half Sine Wave	I_{FSM}	125	A
Power Dissipation		P_D	37.8	W
Operating Junction and Storage Temperatures		T_J, T_{STG}	-55 to + 150	℃
Thermal Resistance	Junction-to-Case	$R_{\theta JC}$	3.3	℃/w
Module-to-Sink			1.1	Nt.m
Weight			2.34	g

ELECTRICAL AND DYNAMIC RECOVERY CHARACTERISTICS (T_J=25°C, unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	Min.	Typ.	Max.	UNIT
Reverse Leakage Current	V_R=600V	I_{RM}	-	-	25	μA
	V_R=600V, T_J=125°C		-	-	250	μA
ForwardVoltage	I_F=8A	V_F	-	1.3	1.7	V
	I_F=8A, T_J=125°C		-	-	1.5	V
Reverse RecoveryTime	I_F=1A, V_R=30V, diF/dt=-200A/μs	trr	-	24	30	ns
Reverse RecoveryTime	V_R=300V, I_F=8A	trr	-	35	-	ns
Max. Reverse Recovery Current	di_F/dt=-200A/μs, T_J=25°C	I_{RRM}	-	4.2	-	A
Reverse RecoveryTime	V_R=300V, I_F=8A	trr	-	65	-	ns
Max. Reverse Recovery Current	di_F/dt=-200A/μs, T_J=125°C	I_{RRM}	-	6.2	-	A

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FIG. 1 - Typical Forward Voltage Drop Characteristics

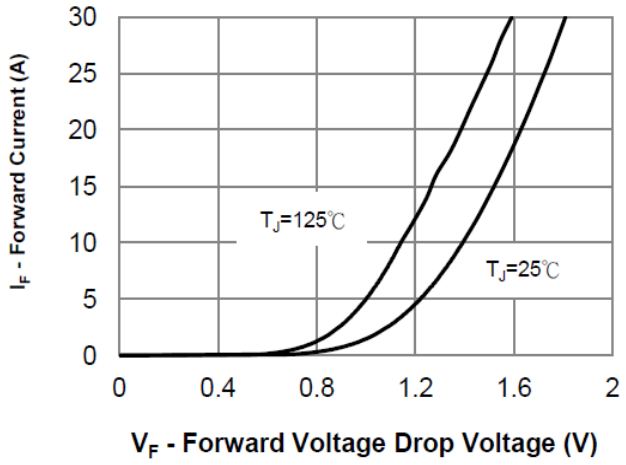


FIG. 2 - Typical Value of Reverse Current vs. Reverse Voltage

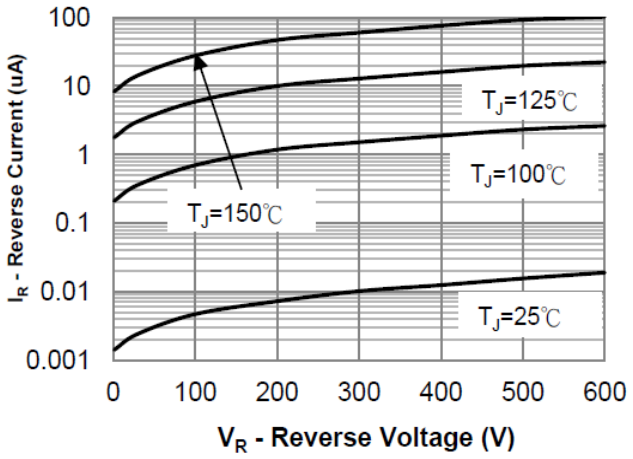


FIG. 3 - Typical Junction Capacitance vs. Reverse Voltage

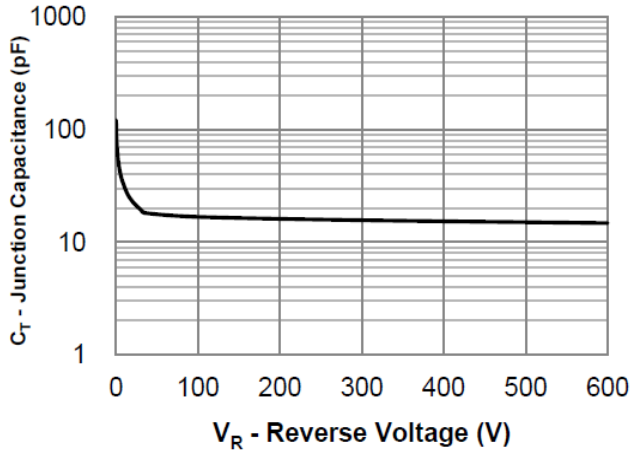
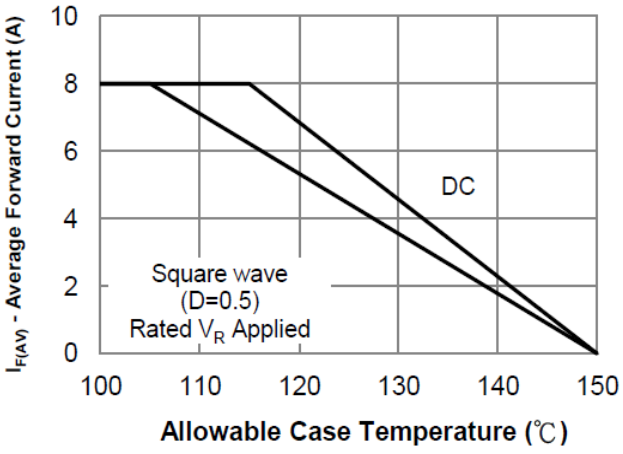


FIG. 4 - Average Forward Current vs. Maximum Allowable Case Temperature



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

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