/ Descriptions

Ultrafast Recovery Diode in a TO-220FAC Plastic Package.

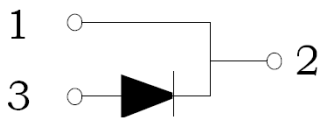
/ Features

Silicon epitaxial process to produce ultrafast recovery diode with low reverse leakage current and high reliability.

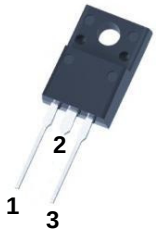
/ Applications

For high frequency, high voltage, high current rectifier diode, freewheeling diode

/ Equivalent Circuit



/ Pinning



PIN1 2 Cathode PIN 3 Anode

/ h_{FE} Classifications & Marking

See Marking Instructions

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
RMS Voltage	V_{RMS}	420	V
DC Blocking Voltage	V_{DC}	600	V
Forward Current	I_F	1 × 8	A
Peak forward surge current	I_{FSM}	100	A
Typical Thermal Resistance Junction to Case	$R_{\theta Jc}$	4	/W
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

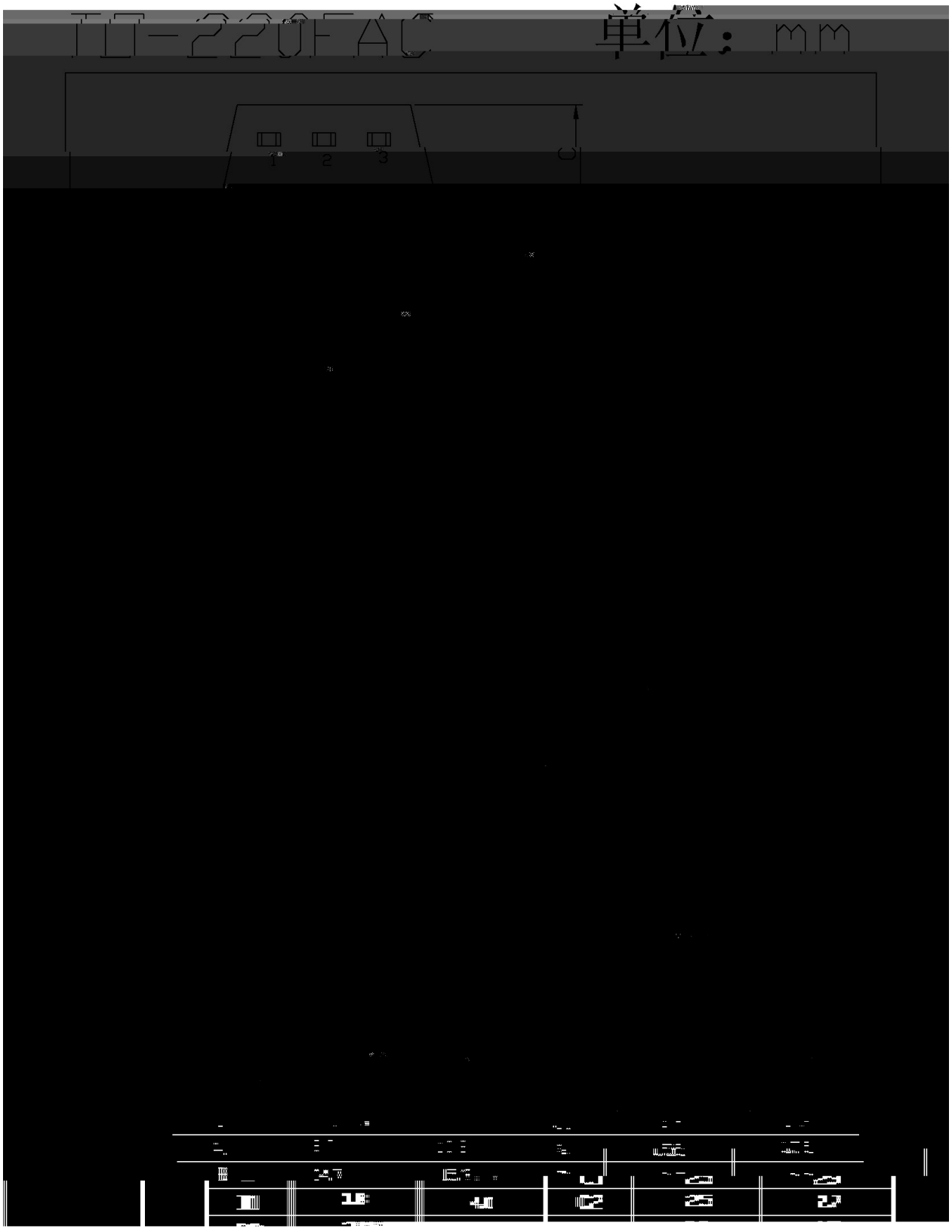
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	I_R=1mA	600			V
Forward Voltage	V_F	I_F=1.0A T_C=25		0.91	1.1	V
		I_F=1.0A T_C=125		0.69	0.8	
		I_F=8A T_C=25		1.28	1.5	
		I_F=8A T_C=125		1.13	1.35	
Instantaneous Reverse Current	I_R Note 1	V_R=600V T_a=25			10	μA
		V_R=600V T_a=125			500	
Reverse Recovery Time	t_{rr}	I_F=0.5A I_R=1.0A I_{RR}=0.25A			50	ns

Notes

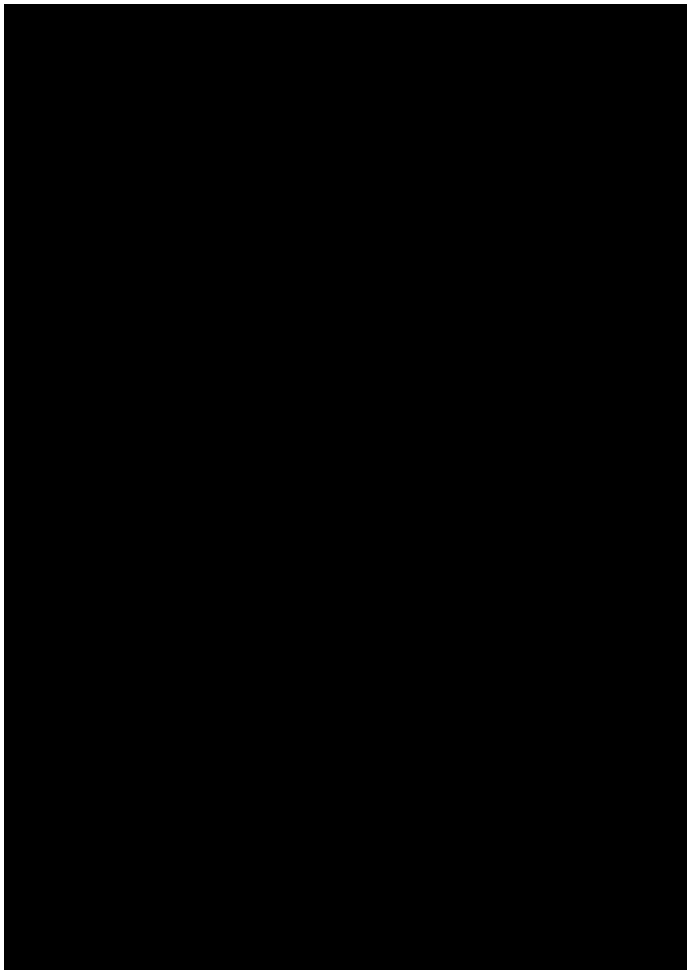
1. Short duration pulse test used to minimize self-heating effect.
2. Unless otherwise noted, values for the parameters of a single chip

/ Electrical Characteristic Curve

/ PackageDimensions



/ Marking Instructions

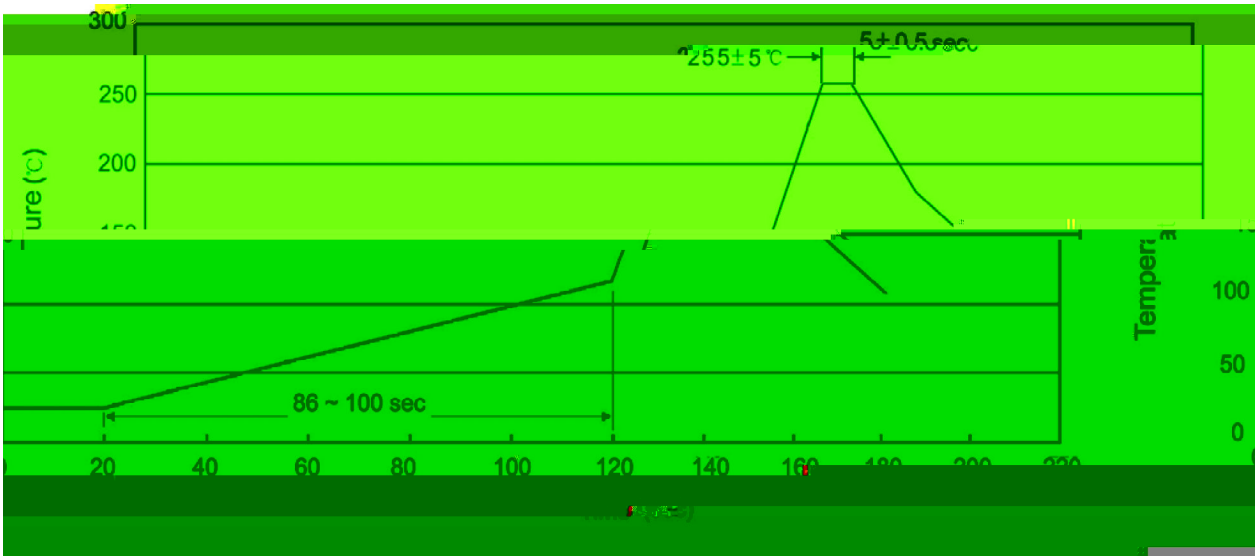


BR

Note:

BR:	Company Code
	Product Type.
****:	Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



Note:

1 25 150 60 90sec;
2 255 5 5 0.5sec;
3 2 10 /sec.

1.Preheating:25~150 , Time:60~90sec.
2.Peak Temp.:255 5 , Duration:5 0.5sec.
3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

270 5 10 1 sec. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units					Dimension (unit mm^3)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F/AC/FAC	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm^3)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F/AC/FAC	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices