/ Descriptions

TO-220AC

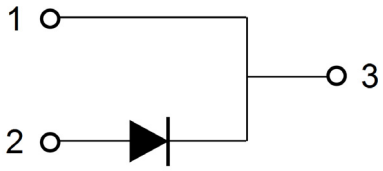
Fast Recovery Epi Diodes in a TO-220AC Plastic Package.

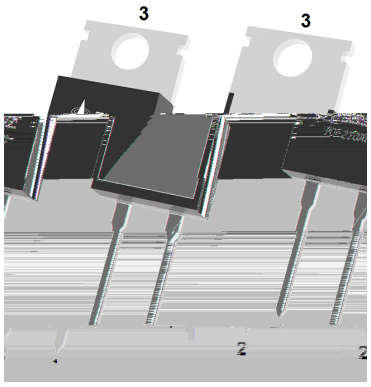
/ Features

AEC-Q101

High frequency operation, High surge forward current capability, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

For high frequency, high voltage, high current rectifier diode, freewheeling diode,Meet the stringent requirements of automotive applications.





PIN 1,3 Cathode PIN2 Anode

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	650	V
Continuous Forward Current	I_F	30	A
Reverse recovery peak current	I_{RM},I_F=30A V_R=200V di/dt=200A/us	3.1	
Non-repetitive forward surge current	I_{FSM} , tp=8.3ms	200	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	75	/ W
Thermal Resistance Junction to Case	$R_{\theta Jc}$	3	/ W
Junction Temperature Range	T_j	-55 150	
Storage Temperature Range	T_{stg}		

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	I_R=100uA	660	700	-	V
Forward Voltage		I_F=30A T_C=25	1.5	1.75	2.0	
Instantaneous Reverse Current	I_R	V_R=650V T_a=25	-	50	1000	nA
Reverse Recovery Time	t_{rr}	I_F=0.5A I_R=1.0A I_{RR}=0.25A	30	40	50	ns

/ Electrical Characteristic Curve

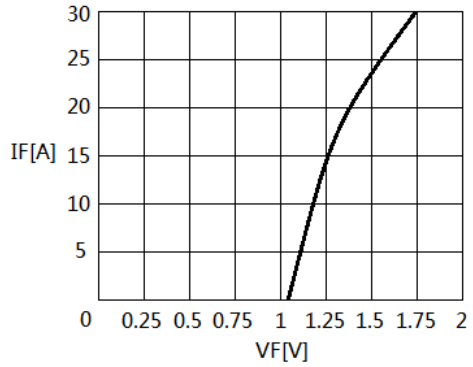


Figure 1 Forward Characteristics

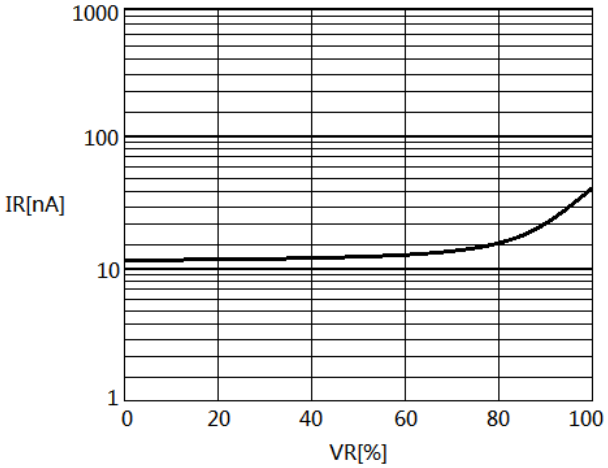


Figure 2 Reverse Characteristics

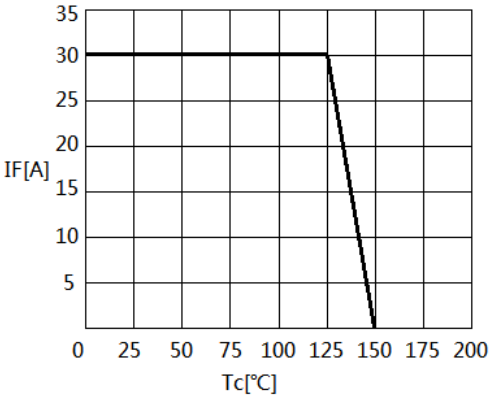
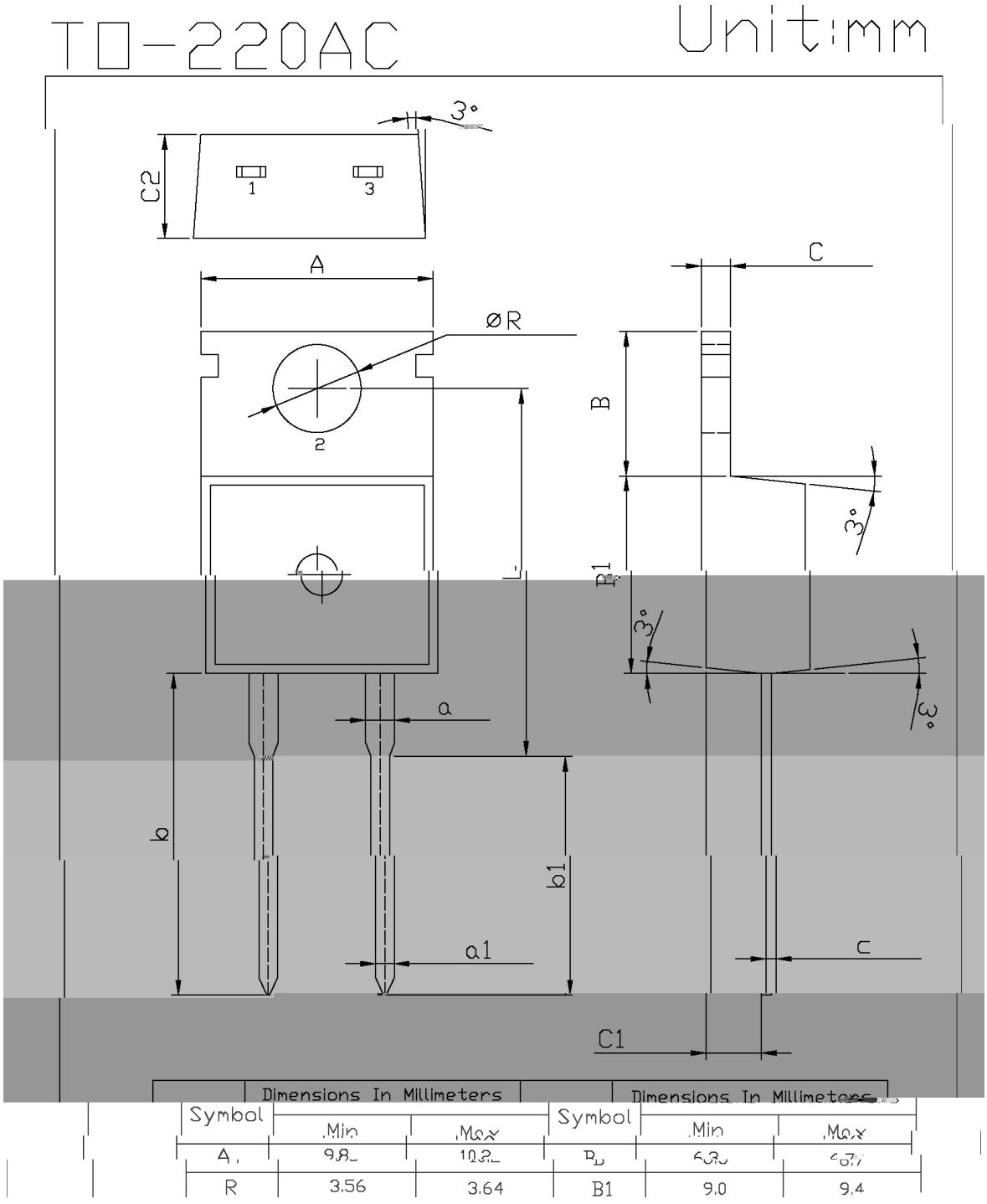


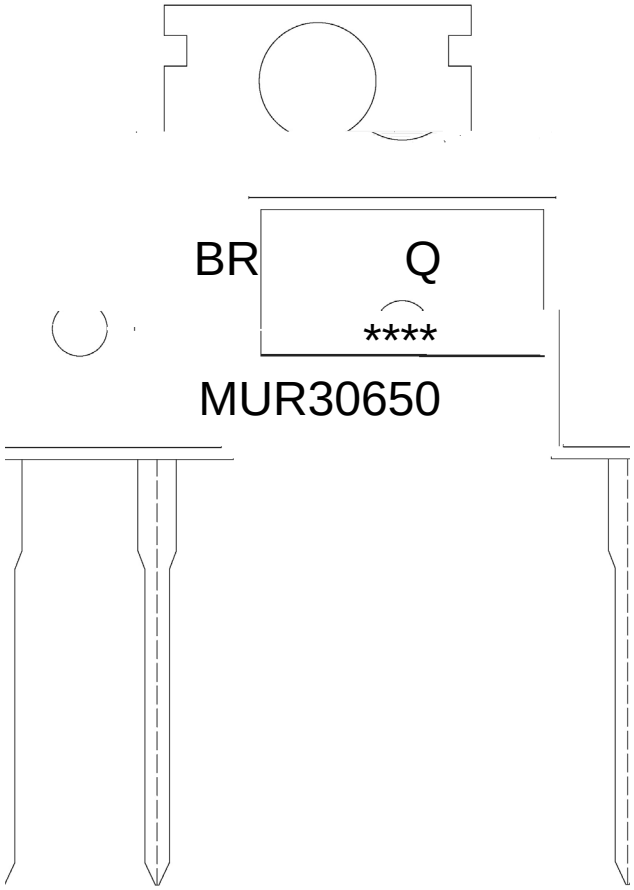
Figure 3 Peak Forward Current Derating

/ Package Dimensions



Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	9.8	10.2	D	6.3	6.7
R	3.56	3.64	B1	9.0	9.4

/ Marking Instructions



BR

Q

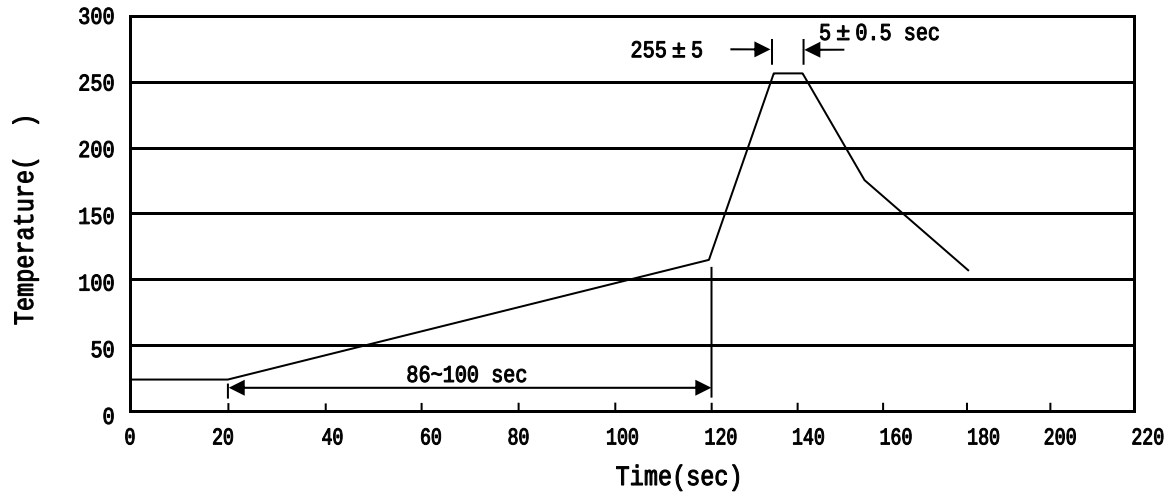
MUR30650

****

Note:

BR:	Company Code
Q	Automobile halogen-free product Code
MUR30650	Product Type Code
****:	Lot No. Code, code change with Lot No

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



Note:

1 25 150 60 90sec;

1.Preheating:25~150 , Time:60~90sec.

2 255±5 5±0.5sec;

2.Peak Temp.:255±5 , Duration:5±0.5sec.

3 2 10 /sec.

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：mm³)
	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：mm³)
	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