

/ Descriptions

TO-220AC

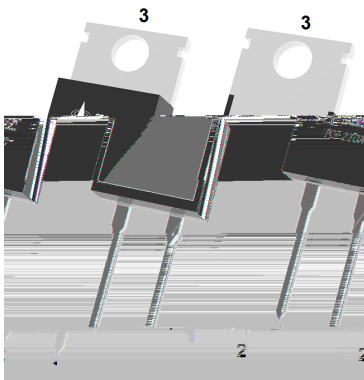
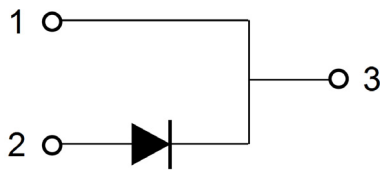
Fast Recovery Epi Diodes in a TO-220AC Plastic Package.

/ 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($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	650	V
Continuous Forward Current	I_F	30	A
Reverse recovery peak current	$I_{RM}, I_F=30\text{A}$ $V_R=200\text{V}$ $di/dt=200\text{A}/\mu\text{s}$	3.1	
Non-repetitive forward surge current	$I_{FSM}, t_p=8.3\text{ms}$	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($T_a=25^\circ\text{C}$)

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

/ Electrical Characteristic Curve

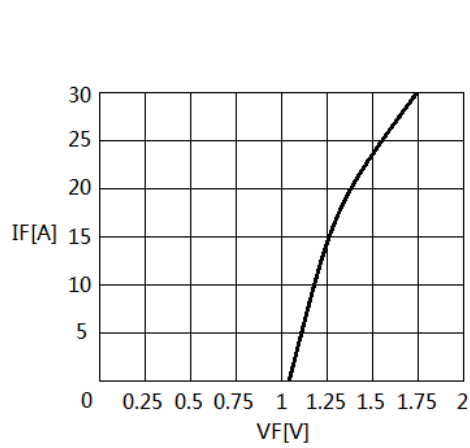


Figure 1 Forward Characteristics

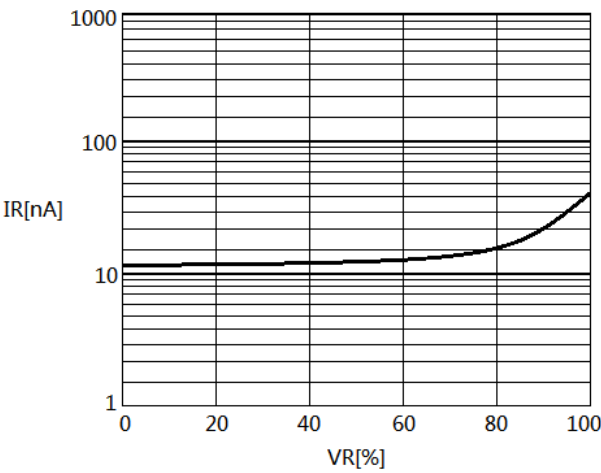


Figure 2 Reverse Characteristics

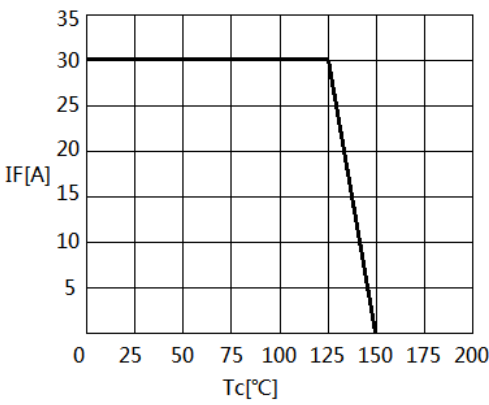
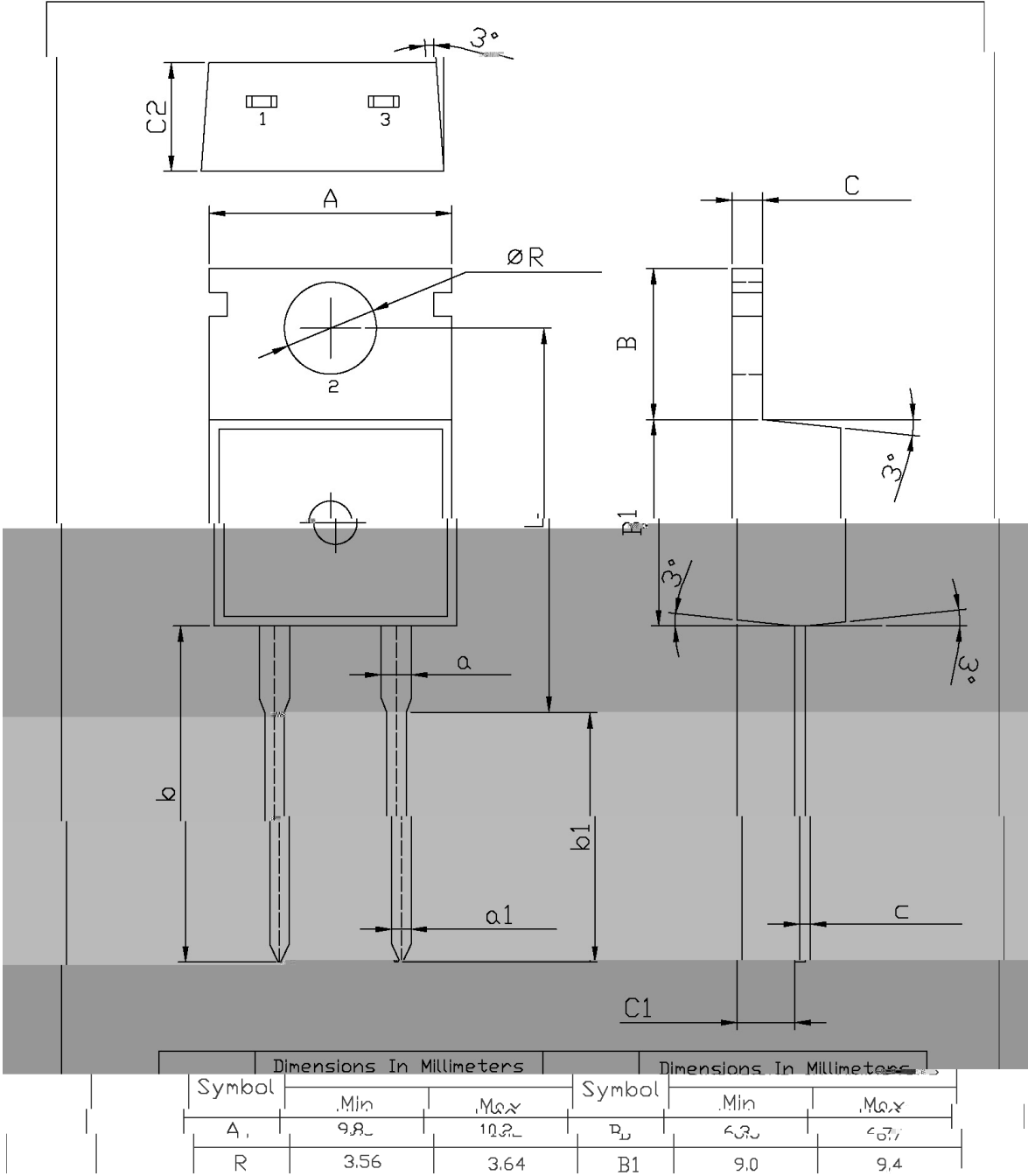


Figure 3 Peak Forward Current Derating

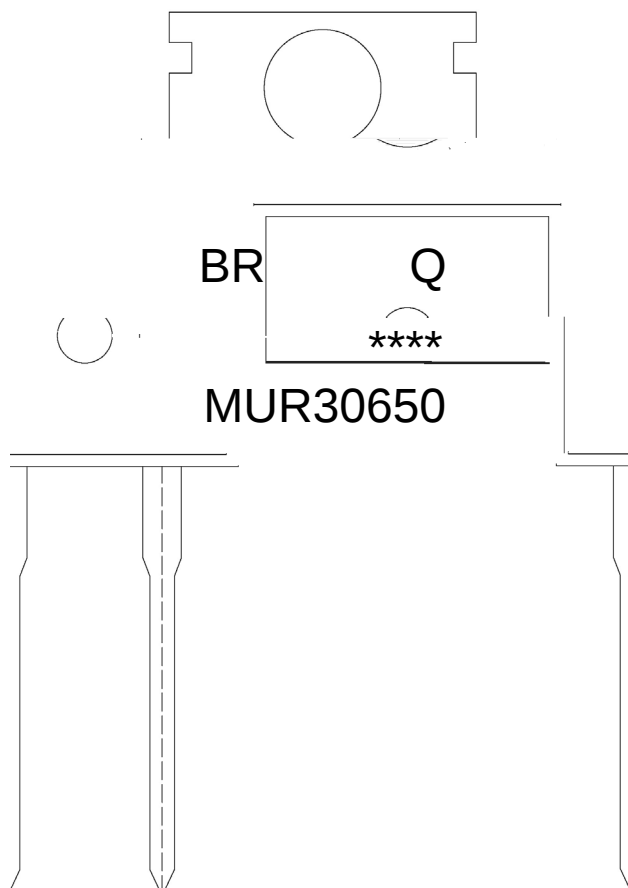
/ Package Dimensions

TQ-220AC Unit:mm





/ Marking Instructions



BR

Q

MUR30650

Note:

BR:

Company Code

Q

Automobile halogen-free product Code

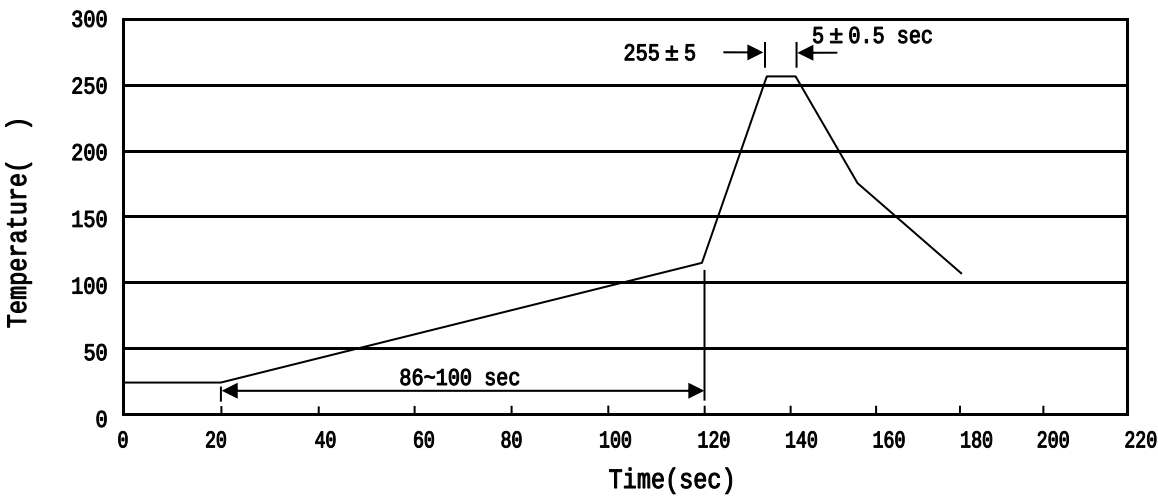
MUR30650

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 °C , Time:60~90sec.
- 2

255±5

5±0.5sec;

2.Peak Temp.:255±5 °C , Duration:5±0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 °C /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