Elektronische Bauelemente

MBR10100F

Voltage 100 V

10.0 Amp Schottky Barrier Rectifiers

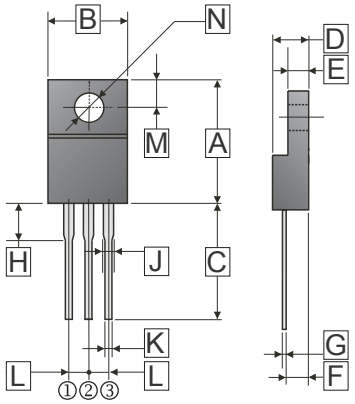
RoHS Compliant Product

A suffix of "-C" specifies halogen free

FEATURES

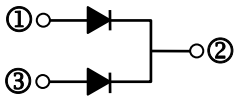
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

ITO-220J



MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 1.98 grams (approximate)



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.80	15.20	H	3.60	4.00
B	9.96	10.36	J	1.30 REF.	
C	13.20 REF.		K	0.50	0.75
D	4.30	4.70	L	2.54 REF.	
E	2.80	3.20	M	2.70 REF.	
F	2.50	2.90	N	ϕ3.5 REF.	
G	0.50	0.75			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	100	V
Working Peak Reverse Voltage		V_{RWM}	100	V
Maximum DC Blocking Voltage		V_{DC}	100	V
Maximum Average Forward Rectified Current	(Per Leg)	I_F	5	A
	(Per Device)		10	
Peak Forward Surge Current, 8.3 ms single half sine-wave		I_{FSM}	120	A
Power dissipation		P_D	2.5	W
Typical Thermal Resistance		$R_{\theta JA}$	50	°C /W
Typical Thermal Resistance		$R_{\theta JC}$	4	°C /W
Operating and Storage Temperature Range		T_J,T_{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS

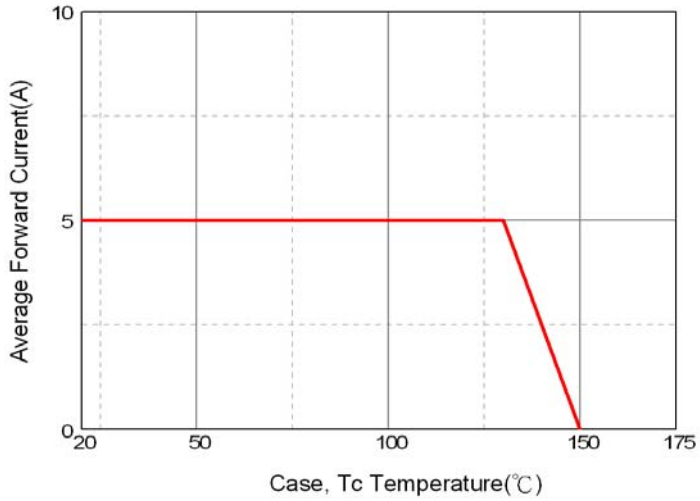
Parameter	Symbol	MIN.	Typ.	Max.	Unit	Test Condition
Reverse voltage	V_{BR}	100	-	-	V	
Maximum Instantaneous Forward Voltage	V_F	-	-	0.85	V	I_F=5A, T_J =25°C
Maximum DC Reverse Current at Rated DC Blocking Voltage [2]	I_R	-	-	0.1	mA	V_R=100V, T_J =25°C
Typical Junction Capacitance [1]	C_J	-	150	-	pF	

NOTES:

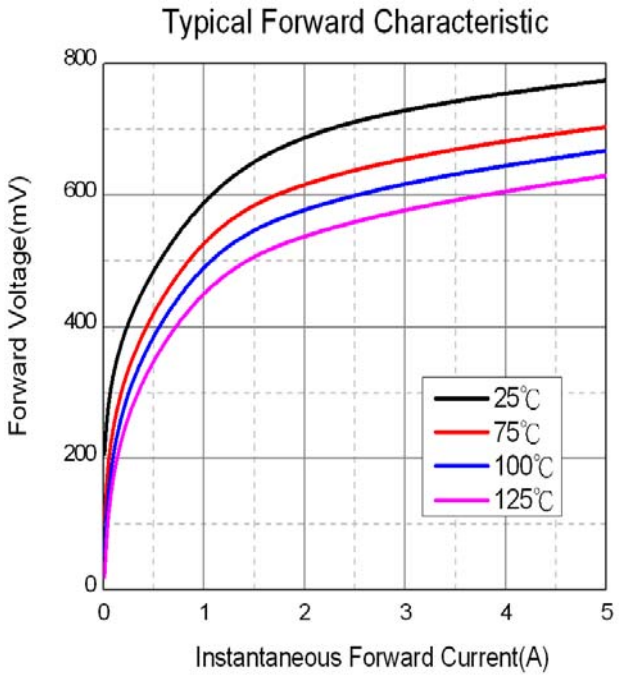
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Pulse Test：Pulse Width = 300 μs, Duty Cycle ≦ 2.0%.

RATINGS AND CHARACTERISTIC CURVES

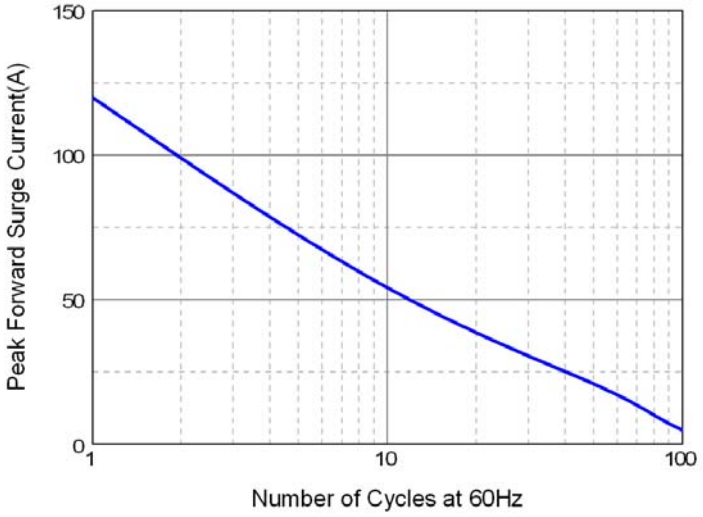
Typical Forward Current Derating Curve



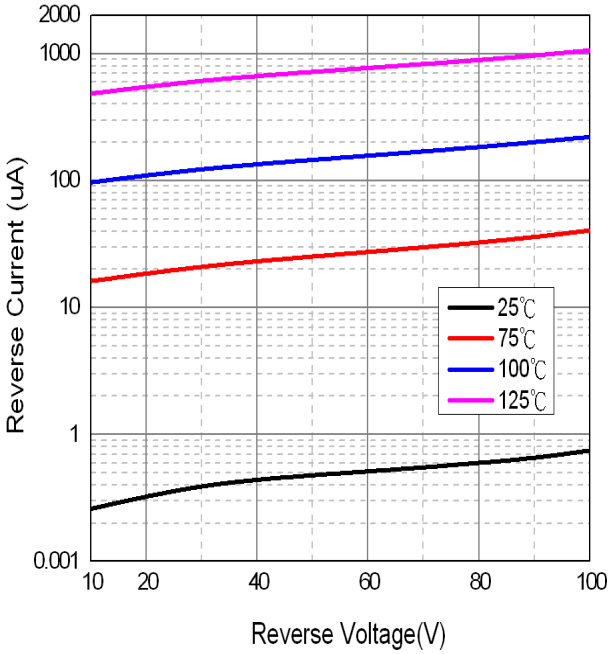
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance