

### ■ PRODUCT CHARACTERISTICS

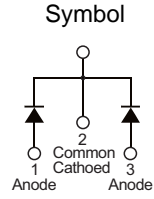
VR(@IC=0.5mA)	100V
VF(Typ@IF=20A)	0.8V
IR(@VR=100V)	50uA
ID	40A

### ■ MECHANICAL CHARACTERISTICS

- \* Case: epoxy,molded
- \* Finish:all external surfaces corrosion resistant and terminal
- \* Leads are readily solderable
- \* Leads temperature for soldering purposes:  
260°C Max for 10 seconds

### ■ FEATURES

- \* Guard ring for stress protection
- \* Low forward voltage
- \* Low power loss/high efficiency
- \* High surge capacity
- \* Low stored charge majority carrier conduction
- \* Pb free package are available



TO-247S

### ■ ORDER INFORMATION

Order codes		Package	Packing
Halogen-free	Halogen		
N/A	MBR40100W	TO-247S	30pieces/Tube

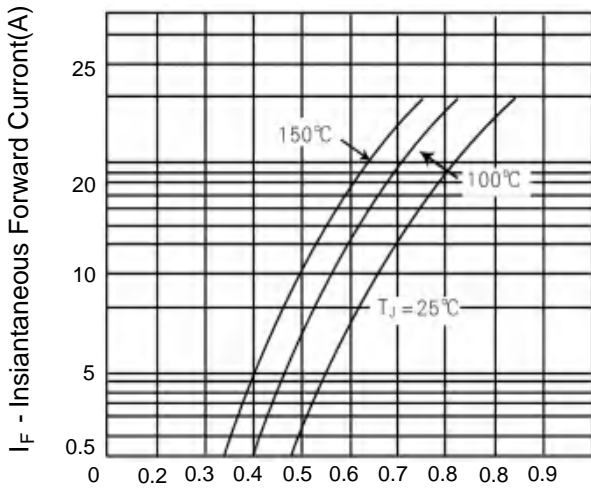
### ■ MAXIMUM RATINGS (Each diode leg)

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	$V_{RRM}$	100	V
Average rectified output current	Total	40	A
	Per leg	20	A
Non-repetitive peak forward surge current 8.3ms single half sine-wave superimposed on reate load	$I_{FSM}$	400	A
Operating and storage temperature range	$T_J, T_{STG}$	-55 to + 175	°C

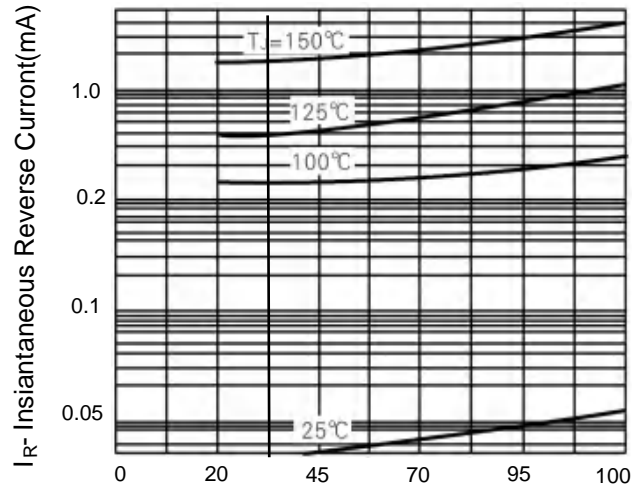
### ■ ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Peak repetitive reverse voltage	$B_V$	$I_C=0.5mA, T_J=25^\circ C$	100	-	-	V
Forward voltage drop	$V_F$	$I_F=20A, T_J=25^\circ C$	-	0.8	0.83	V
Leakage current	$I_R$	$V_R=100V, T_J=25^\circ C$	-	-	0.05	mA
		$V_R=100V, T_J=125^\circ C$	-	-	6	

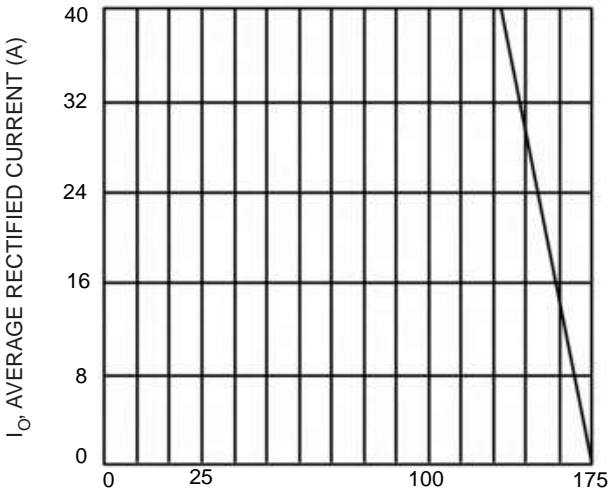
■ TYPICAL CHARACTERISTICS



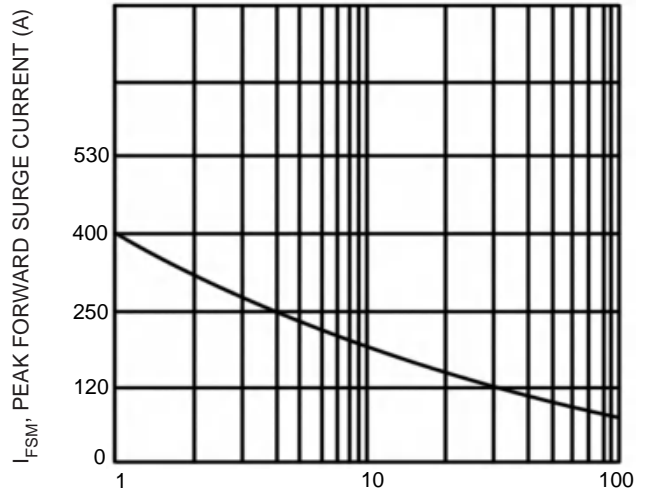
**Figure 1. Typical Forward Voltage Per Diode**



**Figure 2. Typical Reverse Current Per Diode**



**Fig.3 Forward Current Derating Curve**



**Fig.4 Max Non-Repetitive Surge Current**

■ TO-247S PACKAGE OUTLINE DIMENSIONS

