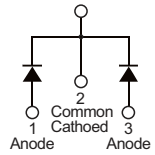
■ PRODUCT CHARACTERISTICS

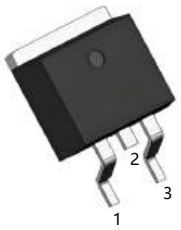
VR(@IC=0.5mA)	100V
VF(Typ@IF=20A)	0.82V
IR(@VR=100V)	0.05mA
ID	40A

Symbol



■ 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



TO-263

■ FEATURES

- Low forward voltage
- Low power loss/high efficiency
- Low stored charge majority carrier conduction
- Pb free package are available

■ ORDER INFORMATION

Order codes		Package	Packing
Halogen-free	Halogen		
N/A	MBR40100E	TO-263	800pieces/Reel

■ MAXIMUM RATINGS (Each diode leg)

Parameter		Symbol	Value	Unit
Peak repetitive reverse voltage		V_{RRM}	100	V
Average rectified output current	Total	I_O	40	A
	Per leg		20	A
Non-repetitive peak forward surge current 8.3ms single half sine-wave superimposed on reate load		I_{FSM}	300	A
Operating and storage temperature range		T_J,T_{STG}	-55 to + 175	°C

■ ELECTRICAL CHARACTERISTICS(T_A=25℃ Unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Peak repetitive reverse voltage	B_V	I_C=0.5mA,T_J=25°C	100	-	-	V
Forward voltage drop	V_F	I_F=20A, T_J=25°C	-	0.82	0.85	V
Typical junction capacitance per diode	C_J	V_R=4V,f=1MHz	-	510	-	pF
Leakage current	I_R	V_R=100V, T_J=25°C	-	-	0.05	mA
		V_R=100V,T_J=125°C	-	-	20	
Typical thermal resistance per diode	$R_{\theta J-A}$		-	40	-	°C/W
	$R_{\theta J-C}$		-	4	-	

■ TYPICAL CHARACTERISTICS

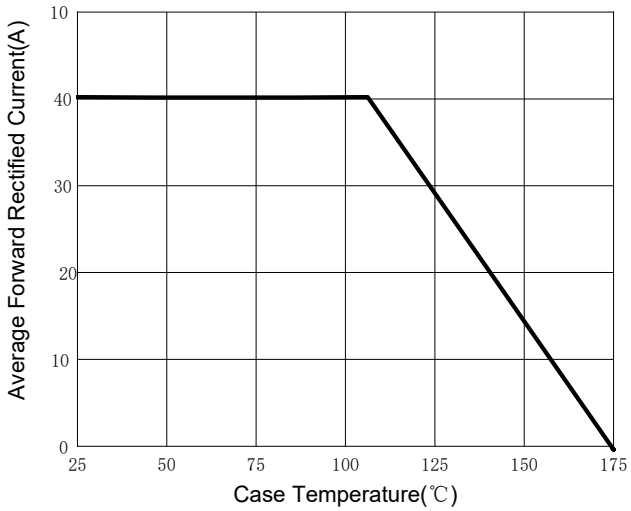


Fig.1:Forward Current Derating Curve

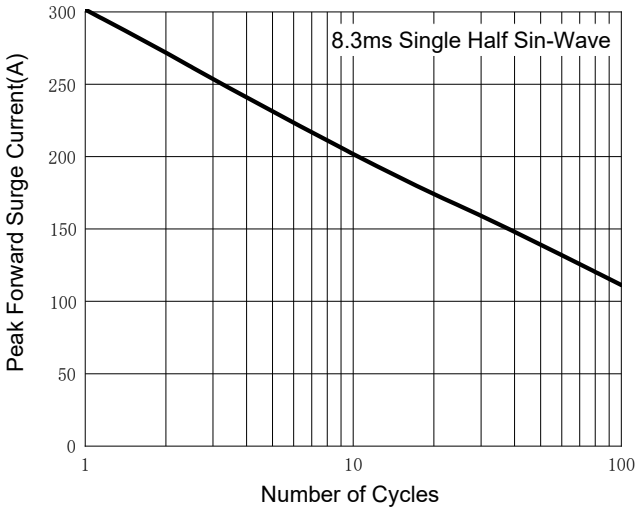


Fig.2: Forward Surge Current Capability(Per Diode)

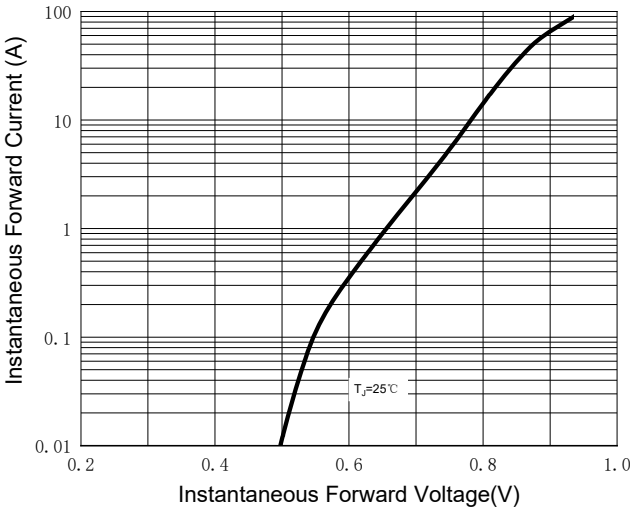


Fig.3:Typical Instantaneous Forward Characteristics(Per Diode)

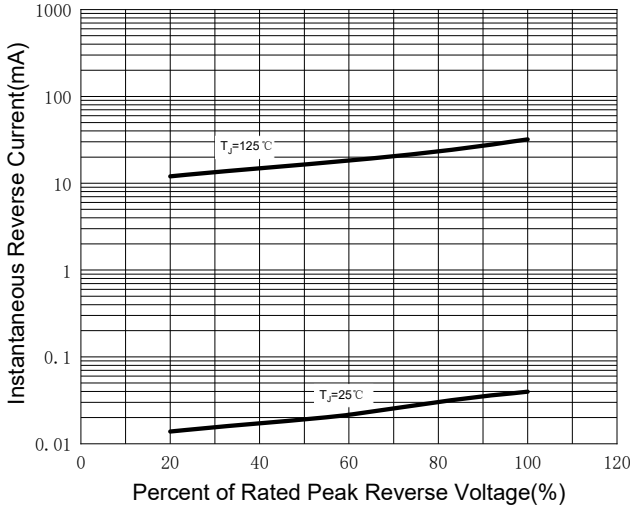


Fig.4:Typical Reverse Leakage Characteristics(Per Diode)

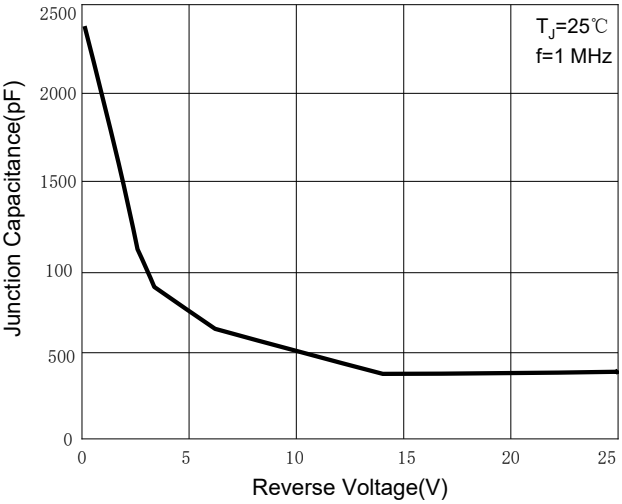


Fig.5:Typical Junction Capacitance(Per Diode)

■ TO-263 PACKAGE OUTLINE DIMENSIONS

