

■ PRODUCT CHARACTERISTICS

$V_R@I_C=5mA$	45V
$V_F(Typ@I_F=20A)$	0.58V
$I_R(@V_R=45V)$	50uA
I_D	40A

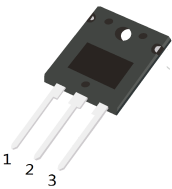
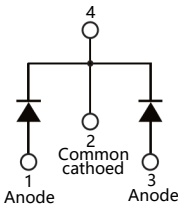
■ APPLICATION

Case epoxy molded
Leds are readily solderable

■ FEATURES

Guard ring for stress protection
Low forward voltage
Low power loss high efficiency
High surge capacity
Pb free packages are available

Symbol



TO-247S

■ ORDER INFORMATION

Order codes		Package	Packing
Halogen-free	Halogen		
N/A	MBR4045W	TO-247S	50pieces/Tube

■ MAXIMUM RATINGS(Each diode leg)

Parameter		Symbol	Value	Unit
Peak repetitive reverse voltage		V_R	45	V
Average rectified output current	Total	I_D	40	A
	Pre leg		20	A
Non-repetitive peak forward surge current 8.3ms single half sine-wave superimposed on reate loda		I_{FSM}	400	A
Operating and storage temperature range		T_J, T_{STG}	-55 to 175	°C

■ ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Peak repetitive reverse voltage	V_R	$I_C=0.5mA, T_J=25^{\circ}C$	45	-	-	V
Forward voltage drop	V_F	$I_F=20A, T_J=25^{\circ}C$	-	0.58	0.62	V
Leakage current	I_R	$V_R=45V, T_J=25^{\circ}C$	-	-	0.05	mA
		$V_R=45V, T_J=125^{\circ}C$	-	-	10	mA

■ TYPICAL CHARACTERISTICS

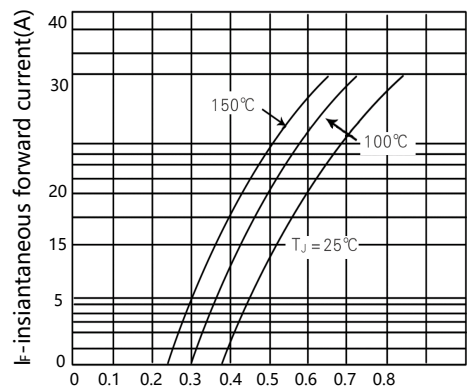


Figure 1 typical forward voltage per diode

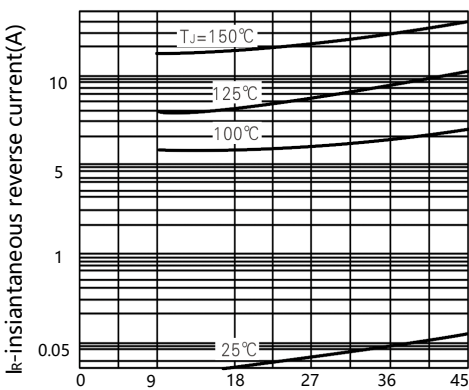


Figure 2 typical reverse current per diode

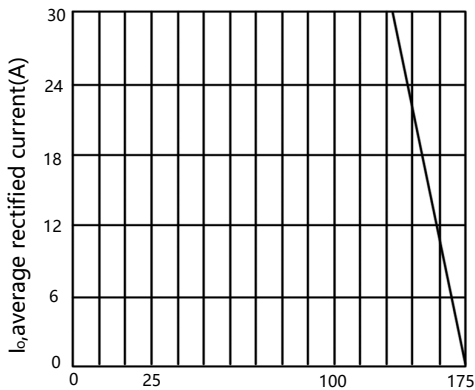


Figure 3 forward current derating curve

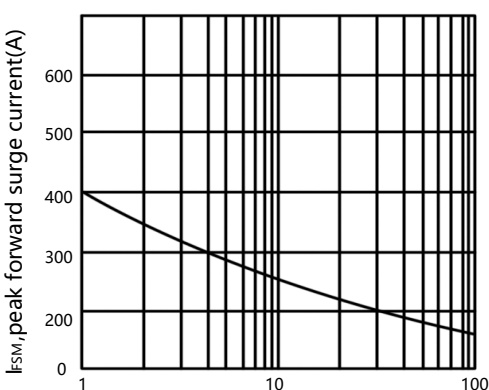


Figure 4 max non-repetitive surge current

■ TO-247S PACKAGE OUTLINE DIMENSIONS

