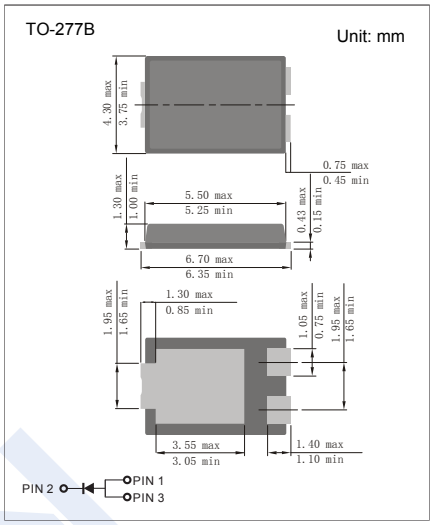
Rectifier Diodes

SBR12U100P5 (KBR12U100SP5)



■ Features

- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	
DC Blocking Voltage	V_R	100	
Average Rectified Output Current	Io	12	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	250	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	27	℃/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	3	
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-65 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	I_R= 100 uA	100			V
Forward voltage	V_{F1}	I_F= 5 A , T_J = 25℃		0.49		
	V_{F2}	I_F= 5 A , T_J = 125℃			0.51	
	V_{F3}	I_F= 12 A , T_J = 25℃			0.71	
Reverse voltage leakage current	I_{R1}	V_R= 100 V , T_J = 25℃			0.25	mA
	I_{R2}	V_R= 100 V , T_J = 125℃			40	

Rectifier Diodes

SBR12U100P5 (KBR12U100SP5)

■ Typical Characterisitics

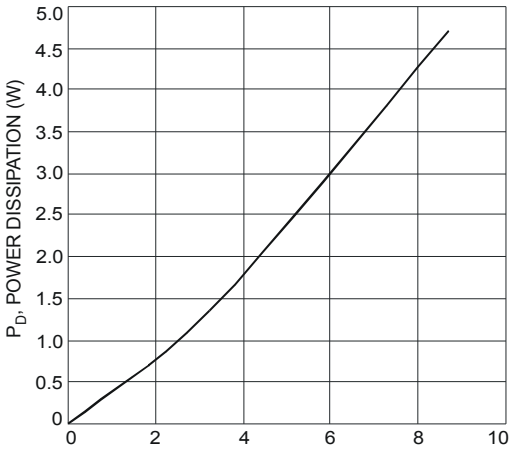


Fig. 1 Forward Power Dissipation

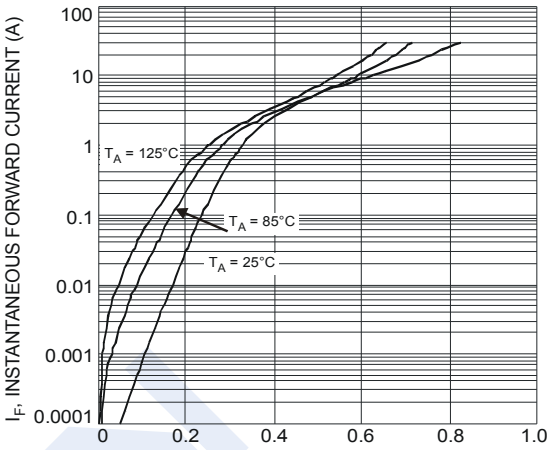


Fig. 2 Typical Forward Characteristics

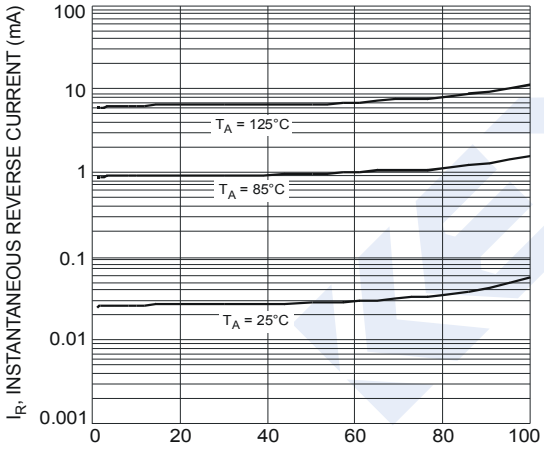


Fig. 3 Typical Reverse Characteristics

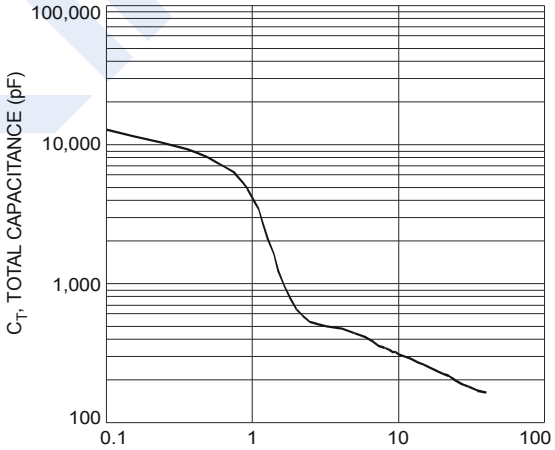


Fig. 4 Total Capacitance vs. Reverse Voltage

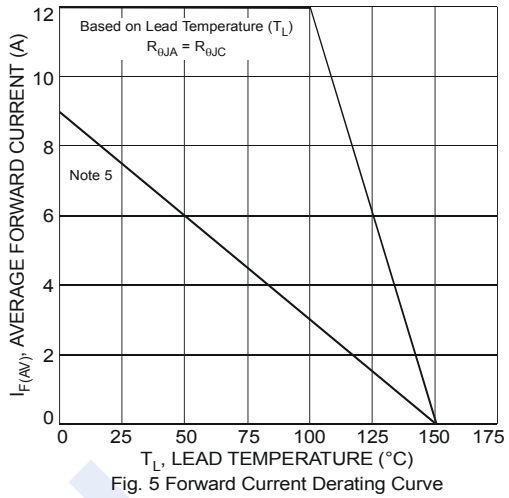


Fig. 5 Forward Current Derating Curve

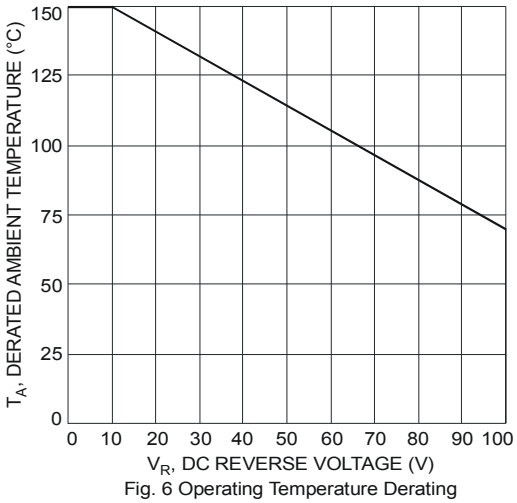


Fig. 6 Operating Temperature Derating