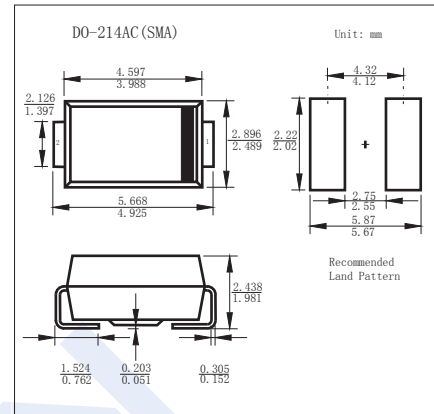


Schottky Diodes

MBRA140 (KBRA140)

■ Features

- Highly Stable Oxide Passivated Junction
- Very Low Forward Voltage Drop
- Guardring for Stress Protection

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Peak Reverse voltage	VRM	40	V
Average Rectified Output Current	Io	1.0	A
Peak forward surge current	IFM	30	
Thermal Resistance Junction to Ambient *	R θ JA	88	$^\circ\text{C}/\text{W}$
Thermal Resistance Junction to Case *	R θ JC	35	
Junction Temperature	TJ	125	$^\circ\text{C}$
Storage temperature range	Tstg	-55 to 150	

*1 Pulse Test: Pulse Width $\leq 250 \mu\text{s}$, Duty Cycle $\leq 2.0\%$.

Schottky Diodes

MBRA140 (KBRA140)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V _R	I _R = 0.1mA	40			V
Forward voltage *1	V _{F1}	I _F = 1.0A			0.55	V
	V _{F2}	I _F =1.0A Ta=100°C			0.505	
	V _{F3}	I _F = 2.0A			0.71	
	V _{F4}	I _F =2.0A Ta=100°C			0.74	
Reverse voltage leakage current	I _{R1}	V _R = 40V			0.5	mA
	I _{R2}	V _R =40V Ta=100°C			10	
	I _{R3}	V _R = 20V			0.1	
	I _{R4}	V _R =20V Ta=100°C			4.0	

*1 Pulse Test: Pulse Width ≤ 250 μs, Duty Cycle ≤ 2.0%.

■ Marking

NO.	MBRA140
Marking	SS14

Schottky Diodes

MBRA140 (KBRA140)

■ Typical Characteristics

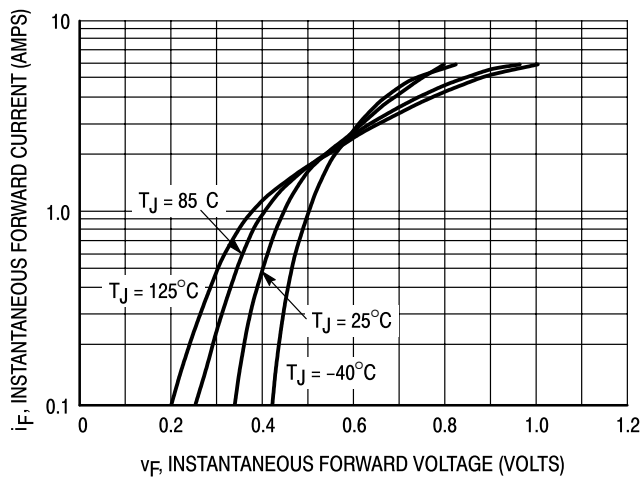


Figure 1. Typical Forward Voltage

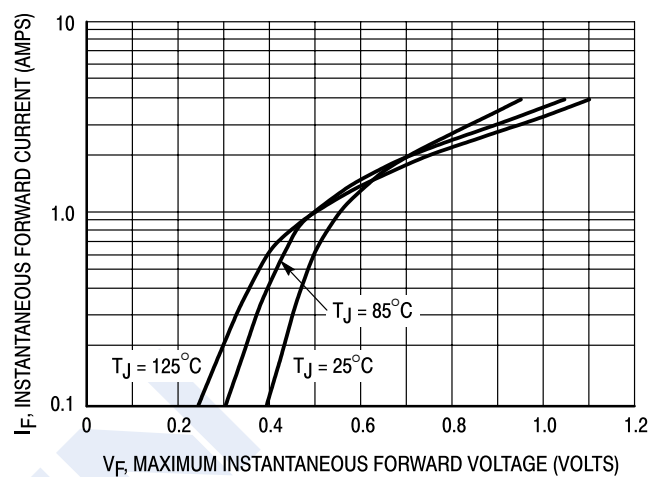


Figure 2. Maximum Forward Voltage

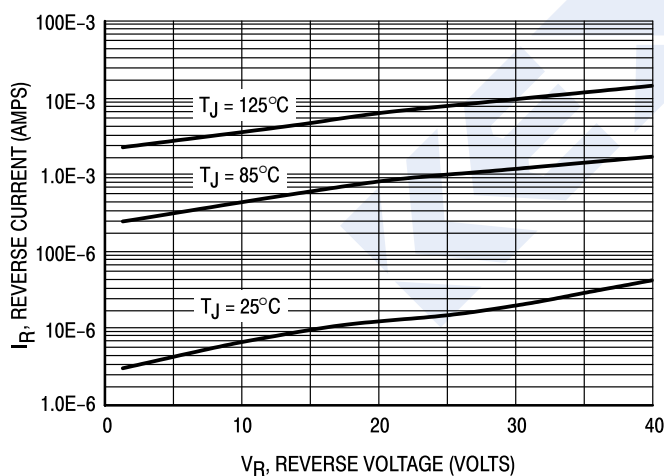


Figure 3. Typical Reverse Current

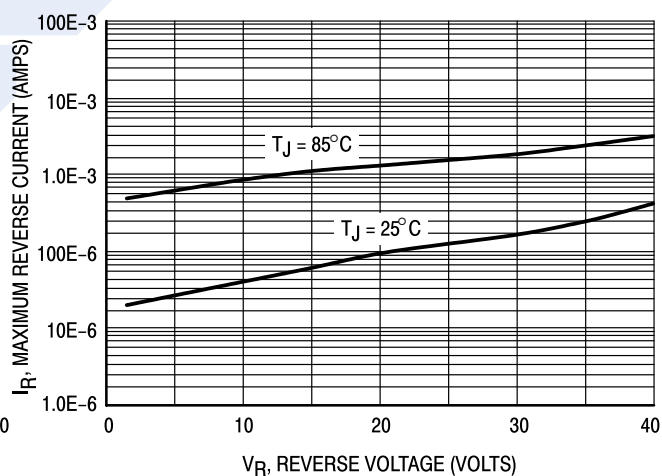


Figure 4. Maximum Reverse Current

Schottky Diodes

MBRA140 (KBRA140)

■ Typical Characteristics

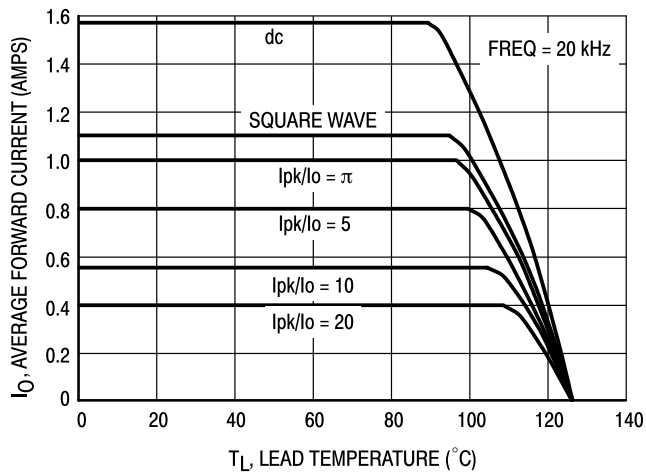


Figure 5. Current Derating

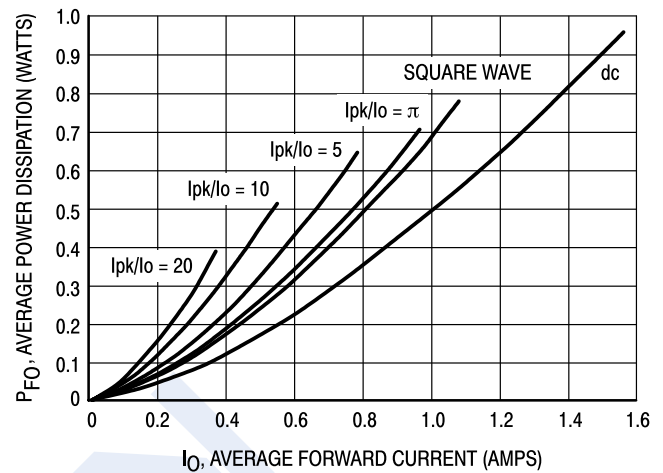


Figure 6. Forward Power Dissipation

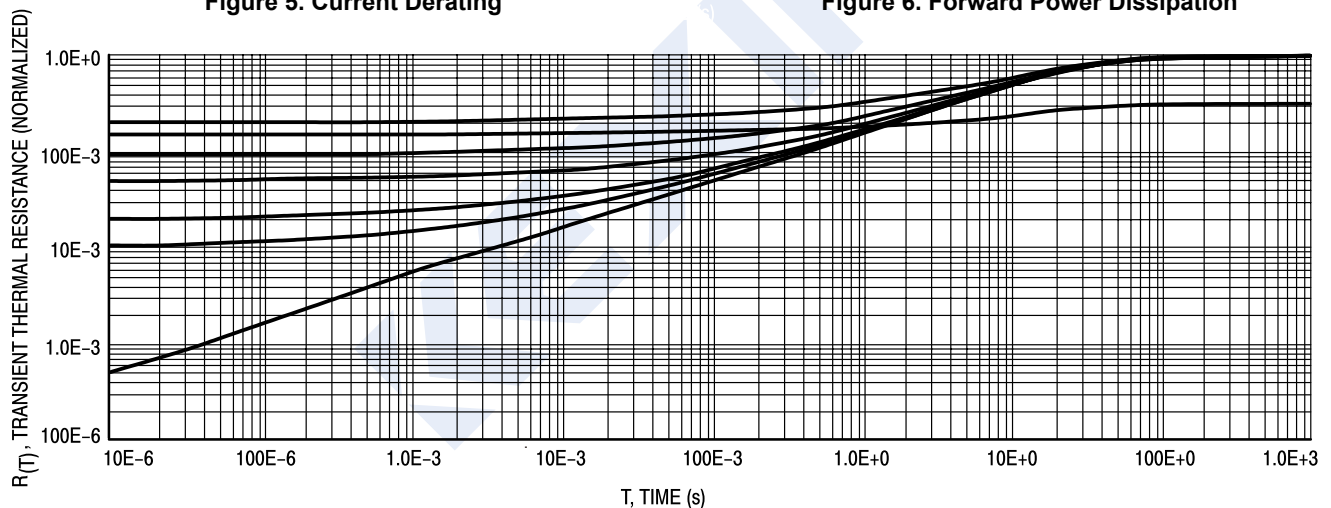


Figure 7. Thermal Response

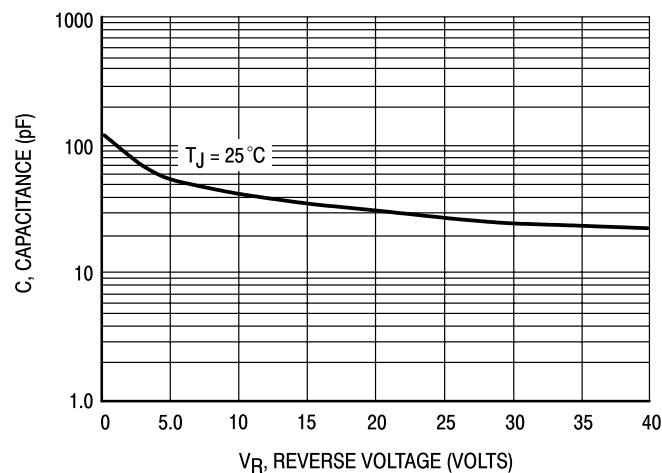


Figure 8. Capacitance