



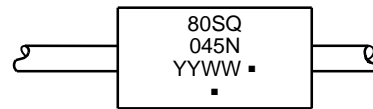
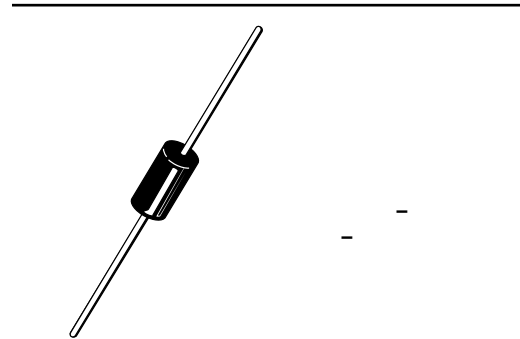
These devices employ the Schottky Barrier principle in a large area metal-to-silicon power diode. State-of-the-art geometry features epitaxial construction with oxide passivation and metal overlap contact. Ideally suited for use as rectifiers in low-voltage, high-frequency inverters, free wheeling diodes, and polarity protection diodes.

- High Current Capability
 - Low Stored Charge, Majority Carrier Conduction
 - Low Power Loss/High Efficiency
 - Highly Stable Oxide Passivated Junction
 - Guard-Ring for Stress Protection
 - Low Forward Voltage
 - High Surge Capacity
 - These are Pb-Free Devices*
- Case: Epoxy, Molded
 - Weight: 1.1 Gram (Approximately)
 - Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
 - Lead and Mounting Surface Temperature for Soldering Purposes: 220°C Max. for 10 Seconds, 1/16" from Case
 - Polarity: Cathode indicated by Polarity Band
 - ESD Protection: Human Body Model > 4000 V (Class 3)
Machine Model > 400 V (Class C)

Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Average Rectified Forward Current $T_L = 75^\circ\text{C}$ ($P_{SiJL} = 12^\circ\text{C/W}$, P.C. Board Mounting, Note 2)	I_O	8.0	A
Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	140	A
Operating and Storage Junction Temperature Range (Reverse Voltage Applied)	T_J, T_{stg}	-65 to +125	$^\circ\text{C}$
Voltage Rate of Change (Rated V_R)	dv/dt	10	V/ns

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

*For additional information on our Pb-Free strategy and soldering details, please download the Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.



YY = Year
WW = Work Week
▪ = Pb-Free Package

(Note: Microdot may be in either location)

		†
80SQ045N	Axial Lead*	500 Units/Box
80SQ045NG	Axial Lead*	500 Units/Box
80SQ045NRLG	Axial Lead*	1500/Tape & Reel

(Note 1)

80SQ045NRL	Axial Lead*	1500/Tape & Reel
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†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

*This package is inherently Pb-Free.

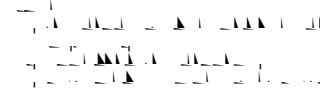
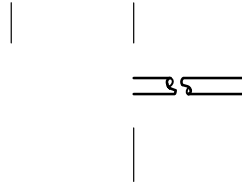
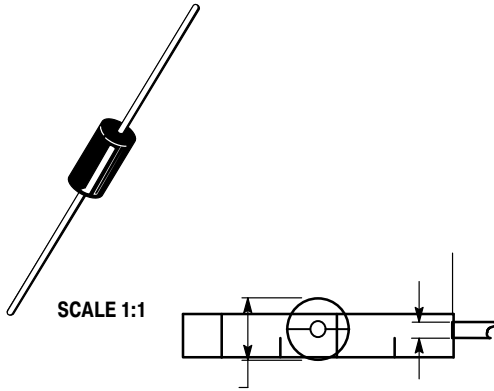
1. This device is not recommended for new design. Please contact your representative for information. The most current information on this device may be available on www.onsemi.com.

Thermal Resistance, Junction-to-Lead (See Note 2 – Mounting Data)	$R_{\theta JL}$	13	12	°C/W
Thermal Resistance, Junction-to-Ambient (See Note 2 – Mounting Data)	$R_{\theta JA}$	50	40	



AXIAL LEAD
CASE 267-05
ISSUE G

DATE 06 JUN 2000



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A				
B				
D				
K				

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