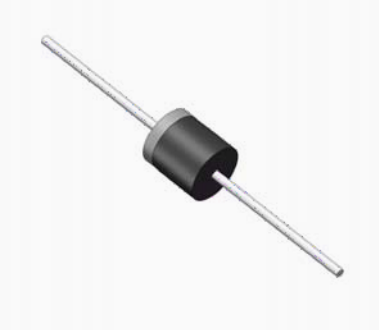
Schottky Diodes



Features

- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7s, per JESD 22-B106

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection

Mechanical Data

- **Package**: R-6
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity**: Color band denotes cathode end

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	20SQ045
Device Marking Code			20SQ045
Repetitive Peak Reverse Voltage	V_{RRM}	V	45
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25	I_O	A	20
Surge(Non-repetitive)Forward Current @60Hz half sine wave, 1 cycle, Ta=25	I_{FSM}	A	315
Current Squared Time @1ms≤t≤8.3ms Tj=25	I^2t	A^2s	411
Storage Temperature	T_{stg}		-55 ~+150
Junction Temperature IN DC Forward Mode-Forward Operations without reverse bias, t ≤1 h (Fig. 1)	T_j		-55 ~+200

				20SQ045
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=20.0A	0.48
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	mA	V_{RM}=V_{RRM} T_a=25	0.1
	I_{RRM2}		V_{RM}=V_{RRM} T_a=100	7.0
	I_{RRM3}		V_{RM}=V_{RRM} T_a=125	20

■**Thermal Characteristics** T_a=25 Unless otherwise specified

■**Outline Dimensions**