

SR202 Thru SR206

Schottky Barrier Rectifiers

Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes.

Features

- * Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Guarantee Reverse Avalanche.
- * Guard-Ring for Stress Protection.
- * Low Power Loss & High efficiency.
- * 150 Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
 * Moisture Sensitivity Level: MSL-1
- 6
- * In compliance with EU RoHs 2002/95/EC directives The marking is indicated by part no. with. "M". ex:SR202M~SR206M

MAXIMUM RATINGS

Characteristic	Symbol	SR202	SR203	SR204	SR205	SR206	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	20	30	40	50	60	V
RMS Reverse Voltage	VR _(RMS)	14	21	28	28	42	V
Average Rectifier Forward Current	lo			2.0			А
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase,60Hz)	I _{FSM}	50			A		
Operating and Storage Junction Temperature Range	T _J , T _{STG}	-65 to +150					

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SR202	SR203	SR204	SR205	SR206	Unit
Maximum Instantaneous Forward Voltage (I _F =2.0 Amp)	V_{F}	0.55		0.70		V	
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25$) (Rated DC Voltage, $T_C = 125$)	I _R	0.5 10		mA			
Maximum Thermal Resistance Junction to Case	$R_{ extsf{ heta}JC}$	50		°C/W			
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	CP		105		9	0	pF









	MILLIMETERS			
DIN	MIN	MAX		
А	2.60	3.60		
В	25.40			
С	5.50	7.60		
D	0.70	0.90		

CASE---Transfer molded plastic



FIG-1 FORWARD CURRENT DERATING CURVE 2.0 AVERAGE FORWARD RECTIFIED CURRENT (Amp.) 1.6 1.2 0.8 0.4 0.0 L 0 25 50 75 100 125 150 CASE TEMPERATURE ()

FIG-2 TYPICAL FORWARD CHARACTERISITICS



FORWARD VOLTAGE (Volts)

FIG-4 TYPICAL JUNCTION CAPACITANCE

FIG-3 TYPICAL REVERSE CHARACTERISTICS



PERCENT OF RATED REVERSE VOLTAGE (%)

500 JUNCTION CAPACITANCE (PF) SR202 -SR20 100 SR205 -SR20 50 10 5 10 40 60

REVERSE VOLTAGE (Volts)



NUMBER OF CYCLES AT 60 Hz

10

100

0

FIG-5 PEAK FORWARD SURGE CURRENT