

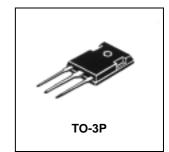
# **Schottky Barrier Rectifiers**

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.

- \* 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

### SCHOTTKY BARRIER RECTIFIERS

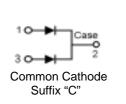
40 AMPERES 90-100 VOLTS



## **MAXIMUM RATINGS**

Characteristic	Symbol	S40D90CE	S40D100CE	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	90	100	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	63	70	V
Average Rectifier Forward Current Total Device (Rated V <sub>R</sub> ),T <sub>C</sub> =100	I <sub>F(AV)</sub>	20 40		А
Peak Repetitive Forward Current (Rate V <sub>R</sub> , Square Wave, 20kHz)	I <sub>FM</sub>	40		А
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I <sub>FSM</sub>	300		А
Operating and Storage Junction Temperature Range	$T_J$ , $T_STG$	-65 to +150		

DIM	MILLIMETERS				
	MIN	MAX			
Α	20.63	22.38			
В	15.38	16.20			
С	1.90	2.70			
D	5.10	6.10			
E	14.81	15.22			
F	11.72	12.84			
G	4.20	4.50			
Н	1.82	2.46			
1	2.92	3.23			
J	0.89	1.53			
K	5.26	5.66			
L	18.50	21.50			
M	4.68	5.36			
N	2.40	2.80			
0	3.25	3.65			
P	0.55	0.70			



# **ELECTRIAL CHARACTERISTICS**

Characteristic	Symbol	S40D90CE	S40D100CE	Unit
Maximum Instantaneous Forward Voltage ( $I_F = 20 \text{ Amp } T_C = 25$ ) ( $I_F = 20 \text{ Amp } T_C = 125$ )	V <sub>F</sub>	0.85 0.75		V
Maximum Instantaneous Reverse Current ( Rated DC Voltage, $T_C = 25$ ) ( Rated DC Voltage, $T_C = 125$ )	I <sub>R</sub>	2.0 80		mA

