

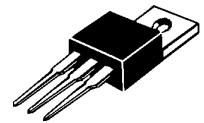
Schottky Barrier Rectifiers

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°C Operating Junction Temperature
- *Low Stored Charge Majority Carrier Conduction.
- *Plastic Material used Carries Underwriters Laboratory
Flammability Classification 94V-O

SCHOTTKY BARRIER RECTIFIERS

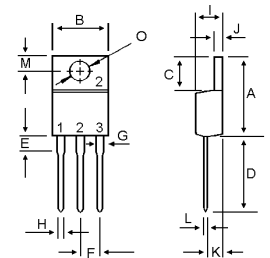
**16 AMPERES
30-60 VOLTS**



TO-220AB

MAXIMUM RATINGS

Characteristic	Symbol	S16C						Unit
		30CE	35CE	40CE	45CE	50CE	60CE	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	35	40	45	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	25	28	32	35	42	V
Average Rectifier Forward Current Total Device (Rated V_R , $T_C=100^\circ\text{C}$)	$I_{F(AV)}$	8.0 16						A
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}	16						A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	I_{FSM}	150						A
Operating and Storage Junction Temperature Range	T_J , T_{stg}	-65 to +150						$^\circ\text{C}$



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	5.02	6.52
D	13.06	14.62
E	3.57	4.07
F	2.42	2.66
G	1.12	1.36
H	0.72	0.96
I	4.22	4.98
J	1.14	1.38
K	2.20	2.98
L	0.33	0.55
M	2.48	2.98
O	3.70	3.90

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	S16C						Unit
		30CE	35CE	40CE	45CE	50CE	60CE	
Maximum Instantaneous Forward Voltage (I _F =8.0 Amp T _C = 25°C) (I _F =8.0 Amp T _C = 125°C)	V _F	0.57 0.48				0.70 0.58		V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T _C = 25°C) (Rated DC Voltage, T _C = 125°C)	I _R	0.5 20						mA



Common cathode
Suffix "C"

S16C30CE Thru S16C60CE

FIG-1 FORWARD CURRENT DERATING CURVE

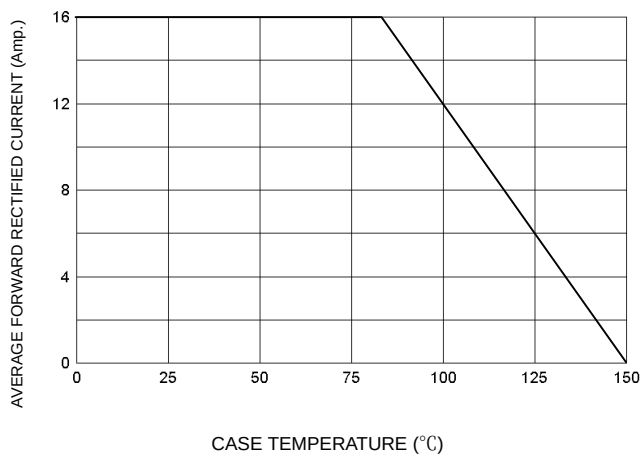


FIG-2 TYPICAL FORWARD CHARACTERISTICS

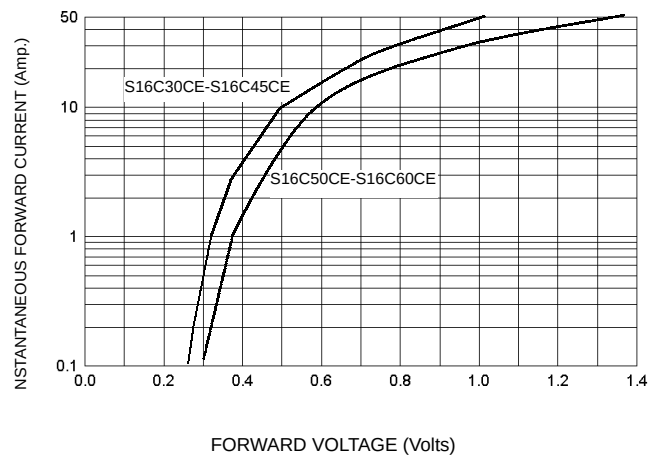


FIG-3 TYPICAL REVERSE CHARACTERISTICS

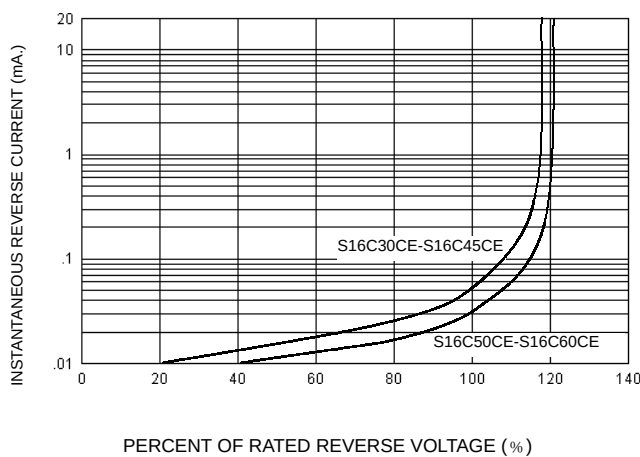


FIG-4 TYPICAL JUNCTION CAPACITANCE

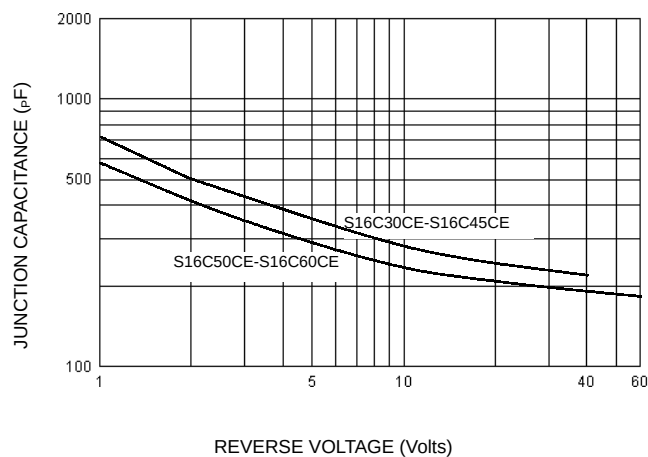


FIG-5 PEAK FORWARD SURGE CURRENT

