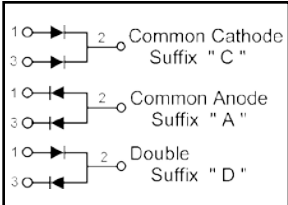
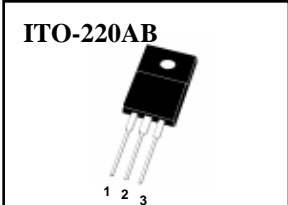


HDS20A03x Thru HDS20A06x

Switchmode Full Plastic Dual Schottky Barrier Power 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.

30-60 VOLTS
20 AMPERES



FEATURES

- Low Forward Voltage.
- Low Switching noise.
- High Current Capacity
- Guarantee Reverse Avalanche.
- Guard-Ring for Stress Protection.
- Low Power Loss & High efficiency.
- 125°C Operating Junction Temperature
- Low Stored Charge Majority Carrier Conduction.
- Plastic Material used Carries Underwriters Laboratory

Maximum Ratings

Symbol	Parameter	Value						Units
		03	035	04	045	05	06	
V_{RRM}	Peak Repetitive Reverse Voltage							V
V_{RWM}	Working Peak Reverse Voltage	30	35	40	45	50	60	
V_R	DC Blocking Voltage							
$V_{R(RMS)}$	R.M.S Reverse Voltage	21	25	28	32	35	42	V
$I_{F(AV)}$	Average Rectifier Forward Current - Total Device (Rated V_R), $T_C=100^\circ C$	10						A
		20						A
I_{FM}	Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	20						A
I_{FSM}	Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half wave, single phase, 60Hz)	200						A
T_J, T_{STG}	Operating and Storage Temperature Range	-65 to +125						°C

Electrial Characteristics

Symbol	Parameter	Value						Units
		03	035	04	045	05	06	
V_F	Maximum Instantaneous Forward Voltage - ($I_F=10$ Amp $T_C = 25^\circ C$) - ($I_F=10$ Amp $T_C = 100^\circ C$)	0.55			0.65			V
		0.48			0.57			
I_R	Maximum Instantaneous Reverse Current - (Rated DC Voltage, $T_C = 25^\circ C$) - (Rated DC Voltage, $T_C = 125^\circ C$)	1.0						mA
		30						

Typical Characteristics

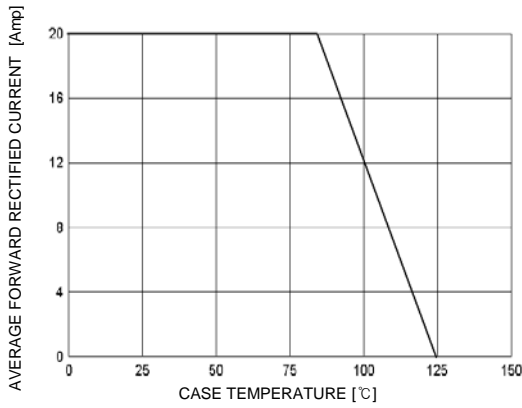


Figure 1. Forward Current Derating Curve

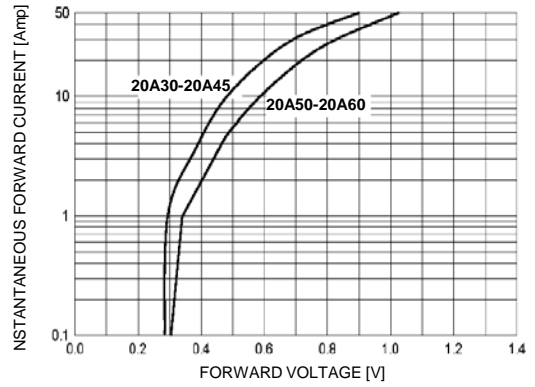


Figure 2. Typical Forward Characteristics

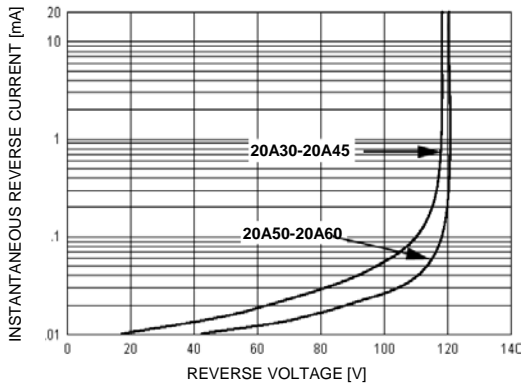


Figure 3. Typical Reverse Characteristics

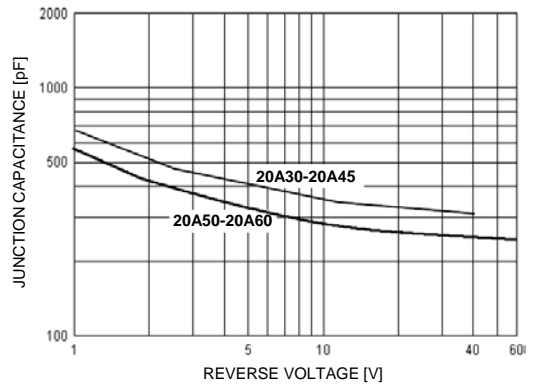


Figure 4. Typical Junction Capacitance

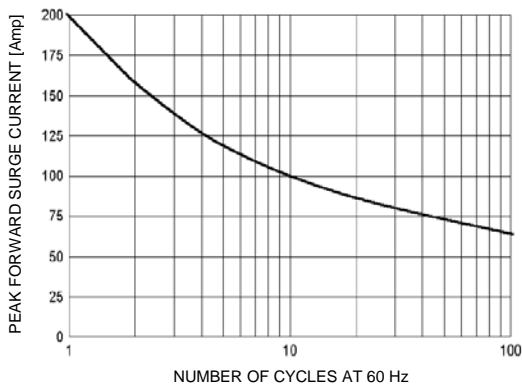
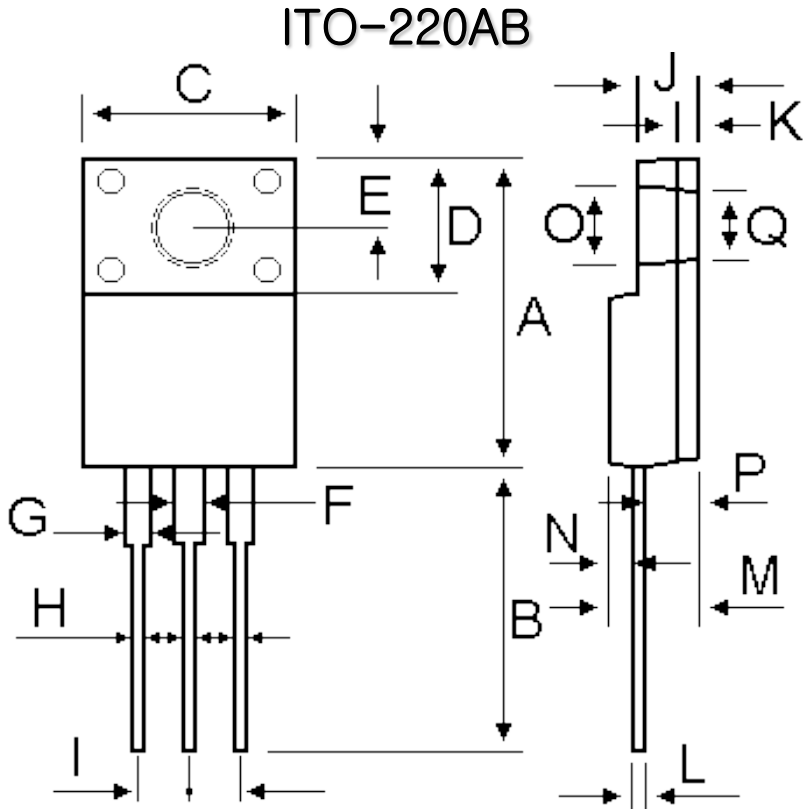


Figure 5. Peak Forward Surge Current

Package Dimension



DIM	MILLIMETERS	
	MIN	MAX
A	15.05	15.15
B	13.35	13.45
C	10.00	10.10
D	6.55	6.65
E	2.65	2.75
F	1.55	1.65
G	1.15	1.25
H	0.55	0.65
I	2.50	2.60
J	3.00	3.20
K	1.10	1.20
L	0.55	0.65
M	4.40	4.60
N	1.15	1.25
P	2.65	2.75
O	3.35	3.45
Q	3.15	3.25