

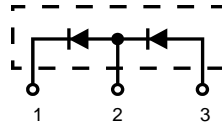
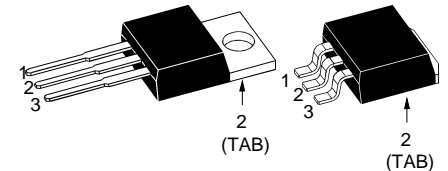
# Phase-leg Rectifier Diode

$$V_{RRM} = 800/1200 \text{ V}$$

$$I_{F(RMS)} = 2 \times 17 \text{ A}$$

$$I_{F(AV)M} = 2 \times 11 \text{ A}$$

$V_{RSM}$ V	$V_{RRM}$ V	TO-220 AB Type	TO-263 AA
900	800	DSP 8-08A	DSP 8-08AS
1300	1200	DSP 8-12A	DSP 8-12AS


**TO-220 AB**
**TO-263 AA**


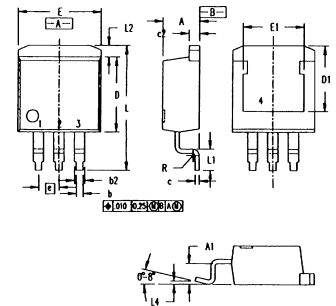
1 = Cathode, 2 = Anode/Cathode, 3 = Anode  
TAB = Anode/Cathode

Symbol	Test Conditions	Maximum Ratings	
$I_{FRMS}$	$T_{VJ} = T_{VJM}$	17	A
$I_{F(AV)M}$	$T_{case} = 100^{\circ}\text{C}; 180^{\circ}$ sine	11	A
$I_{FSM}$	$T_{VJ} = 45^{\circ}\text{C}; t = 10 \text{ ms}$ (50 Hz), sine	100	A
	$t = 8.3 \text{ ms}$ (60 Hz), sine	110	A
	$T_{VJ} = 150^{\circ}\text{C}; t = 10 \text{ ms}$ (50 Hz), sine	90	A
	$t = 8.3 \text{ ms}$ (60 Hz), sine	100	A
$I^2t$	$T_{VJ} = 45^{\circ}\text{C} t = 10 \text{ ms}$ (50 Hz), sine	50	A <sup>2</sup> s
	$t = 8.3 \text{ ms}$ (60 Hz), sine	50	A <sup>2</sup> s
	$T_{VJ} = 150^{\circ}\text{C}; t = 10 \text{ ms}$ (50 Hz), sine	41	A <sup>2</sup> s
	$t = 8.3 \text{ ms}$ (60 Hz), sine	42	A <sup>2</sup> s
$T_{VJ}$		-40...+180	$^{\circ}\text{C}$
$T_{VJM}$		180	$^{\circ}\text{C}$
$T_{stg}$		-40...+150	$^{\circ}\text{C}$
$M_d$	Mounting torque	0.4...0.6	Nm
Weight	TO-263/TO-220	2/4	g

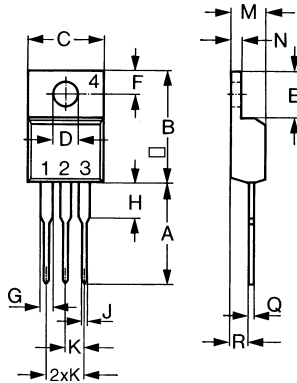
**Features**

- International standard packages JEDEC TO-220 AB and TO-263 AA surface mountable
- For single and three phase bridge configuration
- Planar passivated chips
- Epoxy meets UL 94V-0 flammability classification

Symbol	Test Conditions	Characteristic Values	
$I_R$	$T_{VJ} = 25^{\circ}\text{C} V_R = V_{RRM}$	$\leq$	0.5 mA
$V_F$	$I_F = 7 \text{ A}; T_{VJ} = 25^{\circ}\text{C}$	$\leq$	1.15 V
$V_{T0}$	For power-loss calculations only		0.8 V
$r_T$	$T_{VJ} = T_{VJM}$		40 m $\Omega$
$R_{thJC}$	DC current		3.5 K/W
$R_{thCK}$	DC current (with heatsink compound)	typ.	0.6 K/W
a	Maximum allowable acceleration		100 m/s <sup>2</sup>

**TO-263 AA Outline**


Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.06	4.83	.160	.190
A1	2.03	2.79	.080	.110
b	0.51	0.99	.020	.039
b2	1.14	1.40	.045	.055
c	0.46	0.74	.018	.029
c2	1.14	1.40	.045	.055
D	8.64	9.65	.340	.380
D1	7.11	8.13	.280	.320
E	9.65	10.29	.380	.405
E1	6.86	8.13	.270	.320
e	2.54 BSC		.100 BSC	
L	14.61	15.88	.575	.625
L1	2.29	2.79	.090	.110
L2	1.02	1.40	.040	.055
L4	0	0.38	0	.015
R	0.46	0.74	.018	.029

**TO-220 AB Outline**


Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	12.70	13.97	0.500	0.550
B	14.73	16.00	0.580	0.630
C	9.91	10.66	0.390	0.420
D	3.54	4.08	0.139	0.161
E	5.85	6.85	0.230	0.270
F	2.54	3.18	0.100	0.125
G	1.15	1.65	0.045	0.065
H	2.79	5.84	0.110	0.230
J	0.64	1.01	0.025	0.040
K	2.54	BSC	0.100	BSC
M	4.32	4.82	0.170	0.190
N	1.14	1.39	0.045	0.055
Q	0.38	0.56	0.015	0.022
R	2.29	2.79	0.090	0.110

Data according to IEC 60747 and refer to a single diode unless otherwise stated.  
IXYS reserves the right to change limits, test conditions and dimensions