

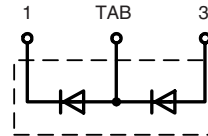
Phase-leg Rectifier Diode

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

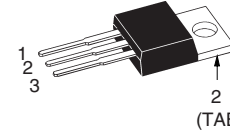
$$I_{F(RMS)} = 2 \times 17 \text{ A}$$

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

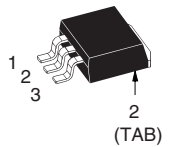
V_{RSM} V	V_{RRM} V	TO-220 AB Type	TO-263 AA	TO-263AB
900	800	DSP 8-08A	DSP 8-08AS	DSP 8-08S
1300	1200	DSP 8-12A	DSP 8-12AS	DSP 8-12S



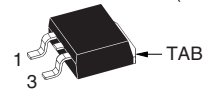
TO-220 AB



TO-263 AA



TO-263 AB



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

Symbol	Conditions			Maximum Ratings	
I _{FRMS}	T _{VJ} = T _{VJM}			17	A
I _{F(AV)M}	T _{case} = 100°C; 180° sine			11	A
I _{FSM}	T _{VJ} = 45°C;	t = 10 ms	(50 Hz), sine	100	A
		t = 8.3 ms	(60 Hz), sine	110	A
	T _{VJ} = 150°C;	t = 10 ms	(50 Hz), sine	90	A
		t = 8.3 ms	(60 Hz), sine	100	A
I ² t	T _{VJ} = 45°C;	t = 10 ms	(50 Hz), sine	50	A ² s
		t = 8.3 ms	(60 Hz), sine	50	A ² s
	T _{VJ} = 150°C;	t = 10 ms	(50 Hz), sine	41	A ² s
		t = 8.3 ms	(60 Hz), sine	42	A ² s
T _{VJ}				-40...+180	°C
T _{VJM}				180	°C
T _{stg}				-40...+150	°C
M _d ¹⁾	Mounting torque			0.4...0.6	Nm
Weight	TO-263/TO-220			2/4	g

Features

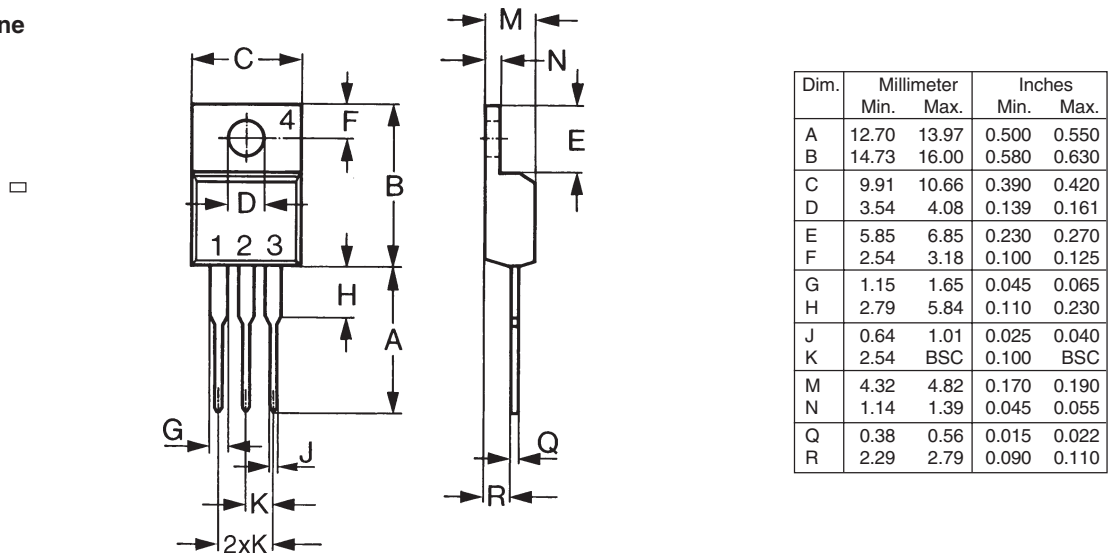
- International standard packages JEDEC TO-220 AB and TO-263 AA surface mountable
- For single and three phase bridge configuration
- Planar passivated chips
- Epoxy meets UL 94V-0 flammability classification

Symbol	Conditions	Characteristic Values	
I_R	$T_{VJ} = 25^{\circ}\text{C} \quad V_R = V_{RRM}$	$\leq$	5 μA
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 Ω
R_{thJC}	DC current		3.5 K/W
$R_{thCH}^{1)}$	DC current (with heatsink compound)	typ.	0.5 K/W
a	Maximum allowable acceleration		100 m/s ²

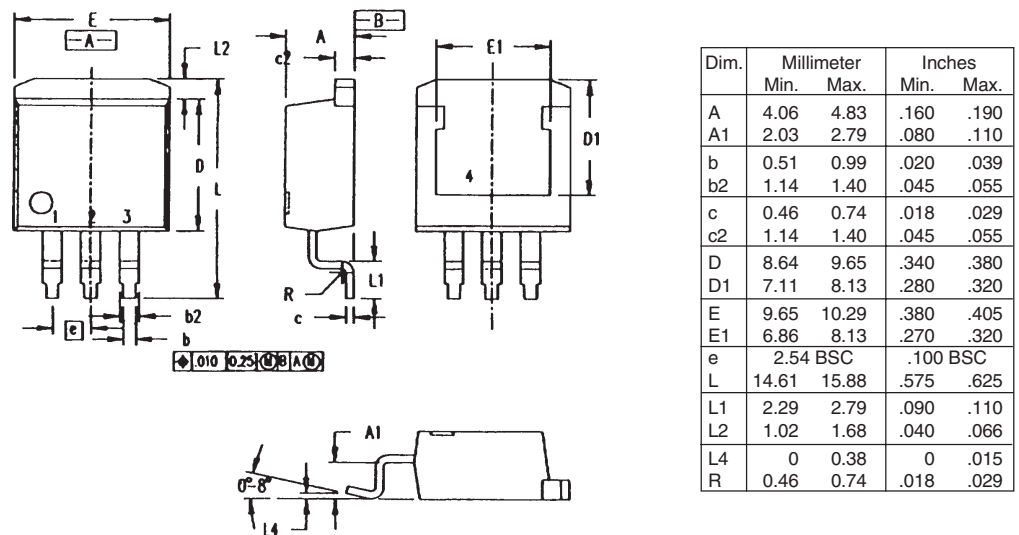
¹⁾ TO-220 only

Data according to IEC 60747 and refer to a single diode unless otherwise stated.

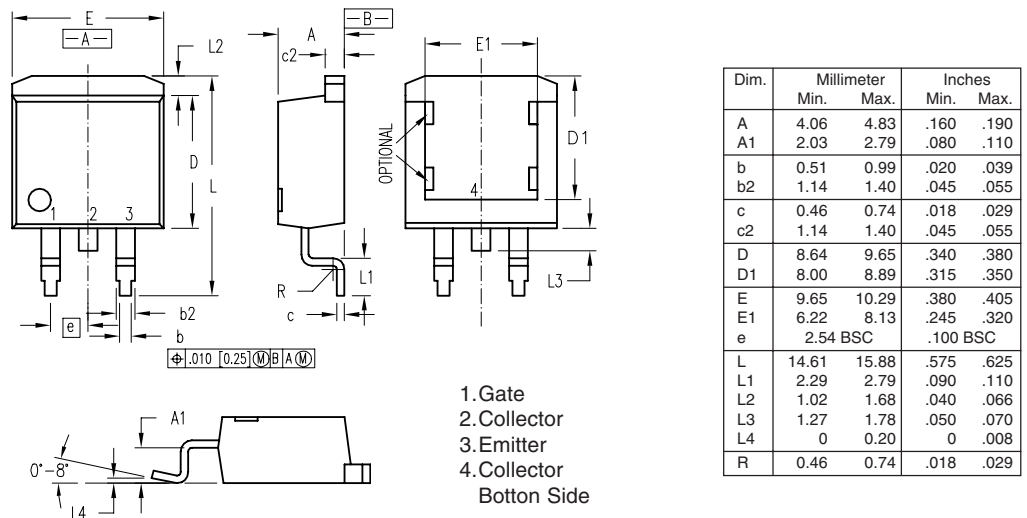
TO-220 AB Outline



TO-263 AA Outline



TO-263 AB Outline



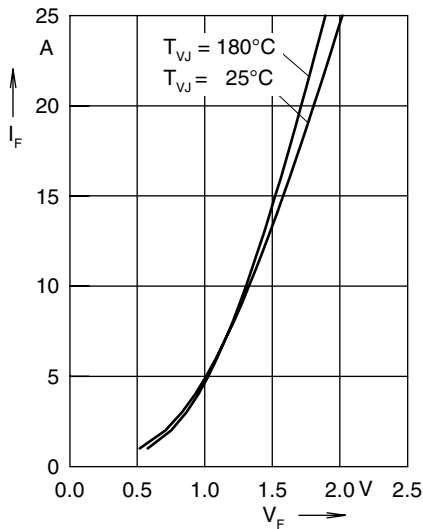


Fig. 1 Forward current versus voltage drop per diode

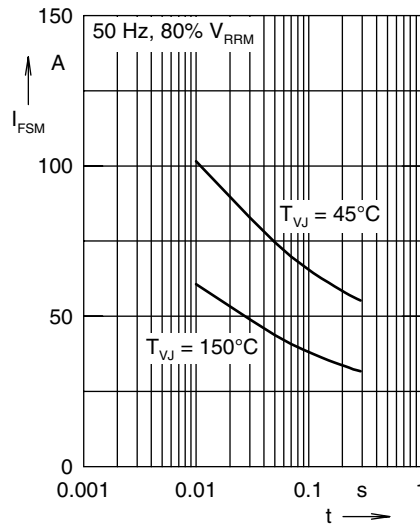


Fig. 2 Surge overload current drop per diode

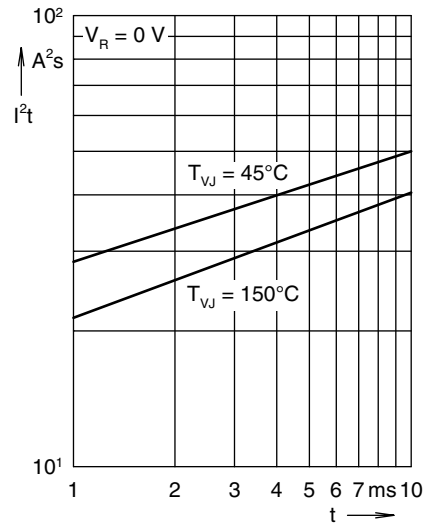


Fig. 3 I^2t versus time per diode

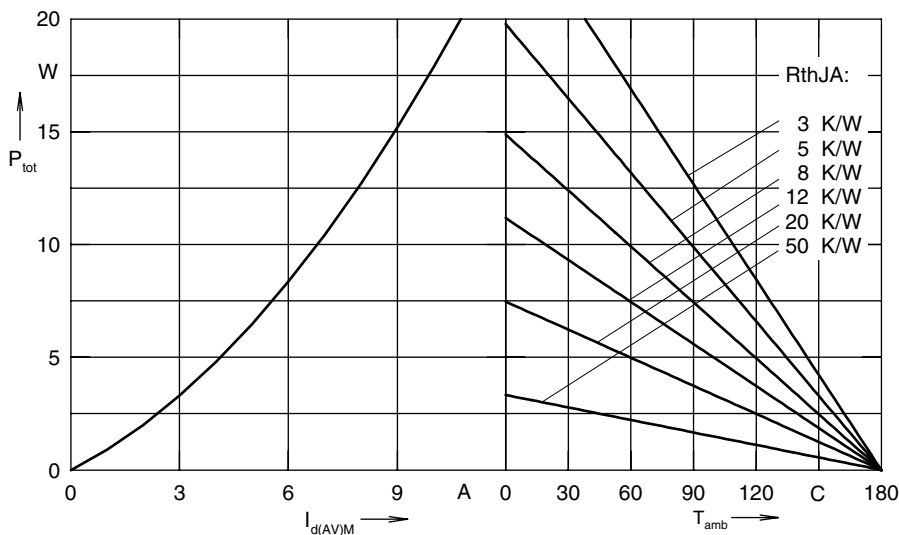


Fig. 4 Power dissipation versus direct output current and ambient temperature, sine 180°

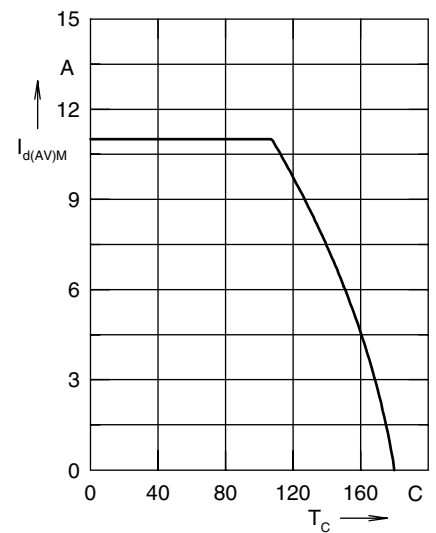


Fig. 5 Max. forward current versus case temperature

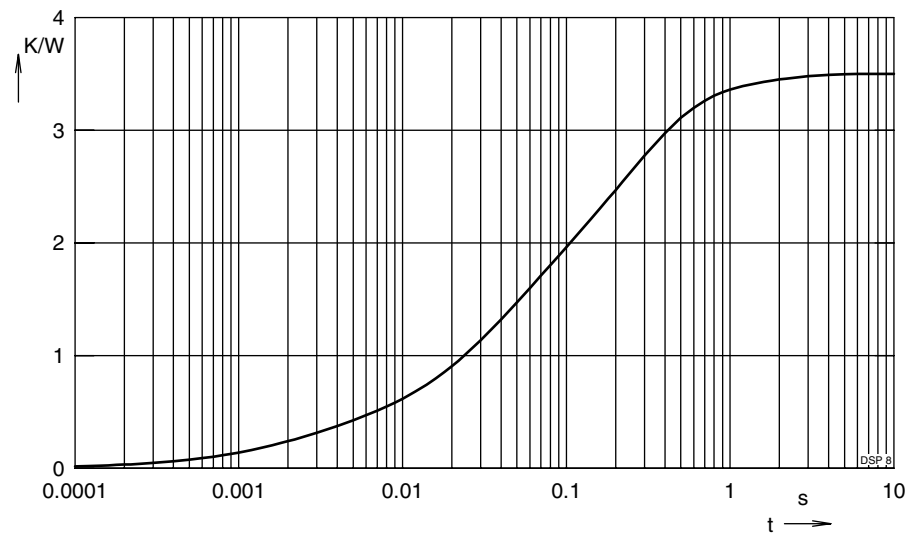


Fig. 6 Transient thermal impedance junction to case

Constants for Z_{thJC} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.252	0.002
2	1.045	0.032
3	1.932	0.227
4	0.271	1.2