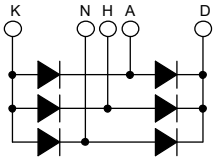
THREE PHASE STANDARD RECOVERY BRIDGE 86A

Preliminary

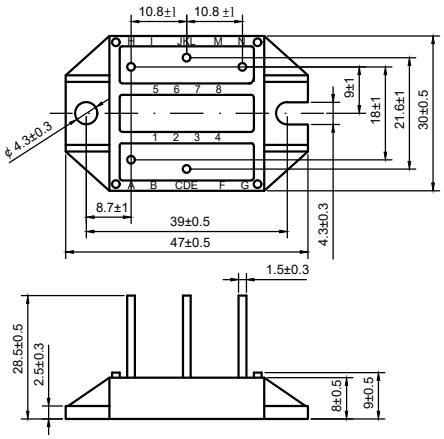
THREE PHASE



Features

- High Surge Capability
- Types up to 1600V V_{RRM}
- Isolation Type Package

Dimensions in mm (1 mm = 0.0394")



Maximum Ratings

Junction Operating Temperature : -40°C to +150°C
Storage Temperature : -40°C to +125°C

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum DC Blocking Voltage
DAR3PV086-160W	1600V	1600V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Definition	Conditions		Symbol	min.	typ.	max.	Unit
Bridge output current	T_C = 90°C , per module	T_{VJ} = 150°C	I_{DAV}			90	A
Max. forward surge current	t = 10 ms; (50 Hz), sine t = 8,3 ms; (60 Hz), sine	T_{VJ} = 45°C V_R = 0 V	I_{FSM}			550 595	A A
	t = 10 ms; (50 Hz), sine t = 8,3 ms; (60 Hz), sine	T_{VJ} = 150°C V_R = 0 V				470 505	A A
Value for fusing	t = 10 ms; (50 Hz), sine t = 8,3 ms; (60 Hz), sine	T_{VJ} = 45°C V_R = 0 V	I^2t			1.52 1.48	kA^2s kA^2s
	t = 10 ms; (50 Hz), sine t = 8,3 ms; (60 Hz), sine	T_{VJ} = 150°C V_R = 0 V				1.11 1.06	kA^2s kA^2s
Reverse current	V_R = 1600 V V_R = 1600 V	T_{VJ} = 25°C T_{VJ} = 150°C	I_R			40 1.5	μA mA
Forward voltage drop	I_F = 80 A	T_{VJ} = 25°C	V_F			1.5	V
Threshold voltage for power loss calculation only		T_{VJ} = 150°C	V_{F0} r_F			0.8 7.8	V mΩ
Total power dissipation		T_C = 25°C	P_{tot}			135	W
Junction capacitance	V_R =400 V;f = 1 MHz	T_{VJ} = 25°C	C_J		20		pF
Creepage distance on surface and Striking distance through air		terminal to terminal	$d_{Spp/App}$	6.0			mm
		terminal to backside	$d_{Spb/Apb}$	10.0			mm
Isolation voltage	50/60 Hz , RMS; IISOL ≤1mA	t = 1 second t = 1 minute	V_{ISOL}	3000 2500			V V
Thermal resistance junction to case			R_{thJC}			0.9	K/W
Thermal resistance case to heatsink			R_{thCH}		0.4		K/W
Mounting torque			M_D	1.4		2	Nm

Figure .1- Typical Forward Characteristics

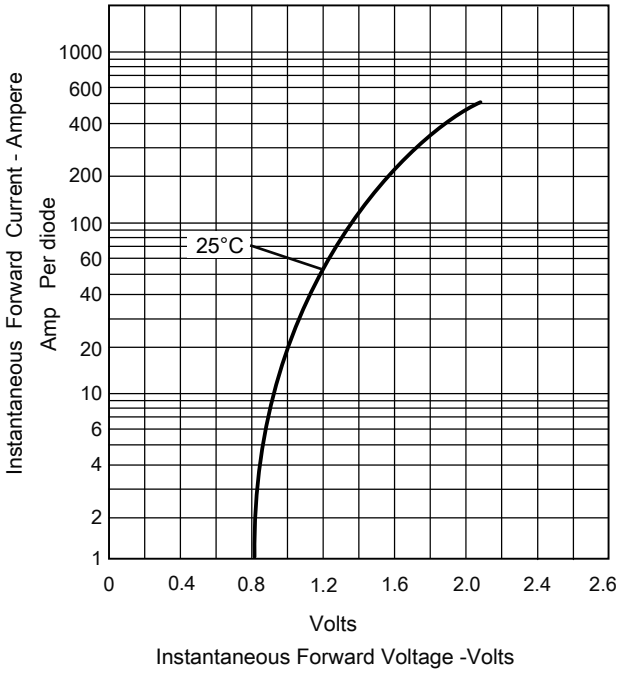


Figure .2-Bridge Output Current Curve

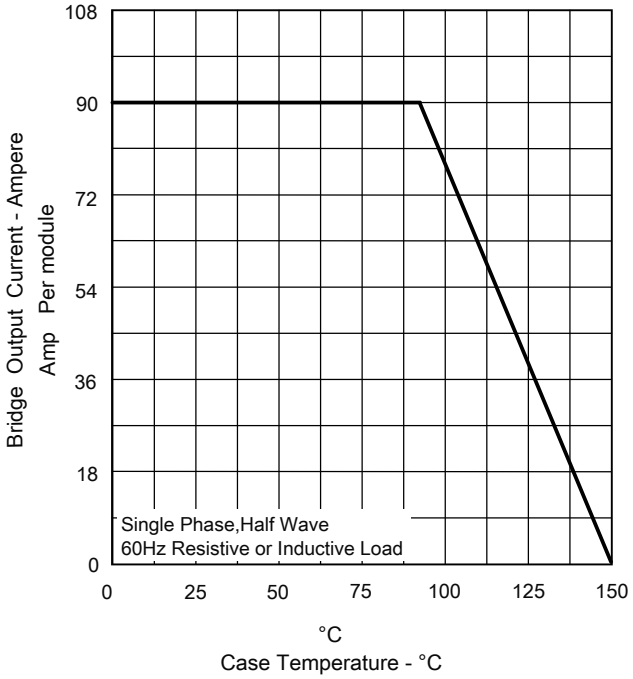


Figure .3- Peak Forward Surge Current

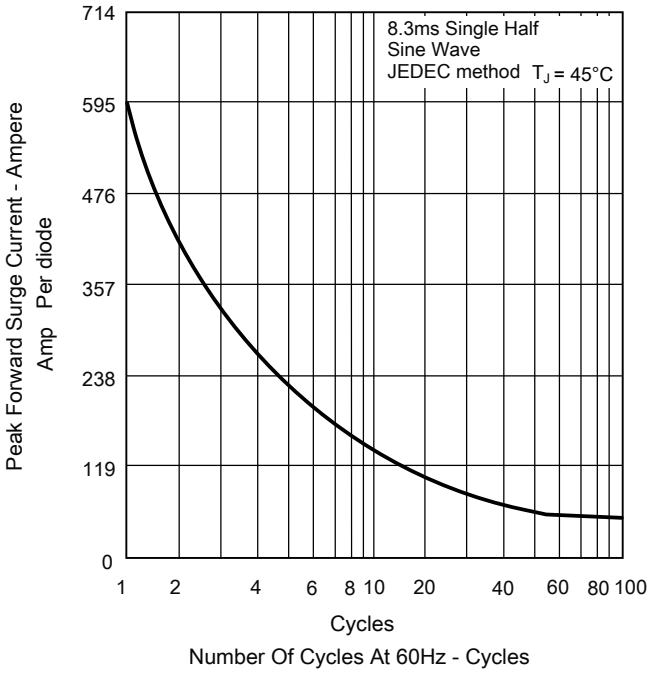
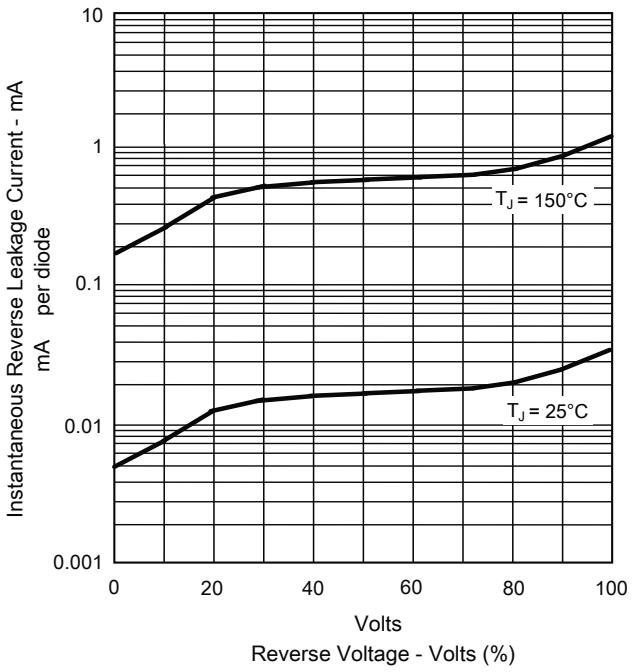


Figure .4 -Typical Reverse Characteristics



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