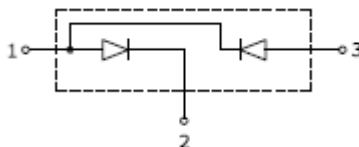


PRELIMINARY DATASHEET

Rectifier Diodes, 2 x 80A, 1600V, Half-Bridge Configuration In iQPak™ Power Module Package

- High voltage
- Low thermal resistance
- High surge capability
- Industrial standard package



MAXIMUM RATINGS (per Diode), at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value	Units
Repetitive peak reverse voltage	V_{RRM}	1600	V
Average forward current $T_c = 100^\circ\text{C}$	$I_{F(AV)}$	80	A
Maximum RMS forward current	$I_{F(RMS)}$	126	
Surge non-repetitive forward current $t_p = 10 \text{ ms}$, no voltage reapplied, half sine wave $T_j = T_{jmax}$	I_{FSM}	1500	
Soldering temperature Wave soldering, 1.6 mm (0.063 in.) from case for 10s	T_s	260	$^\circ\text{C}$
Operating junction and storage temperature	T_j, T_{stg}	-40... +150	

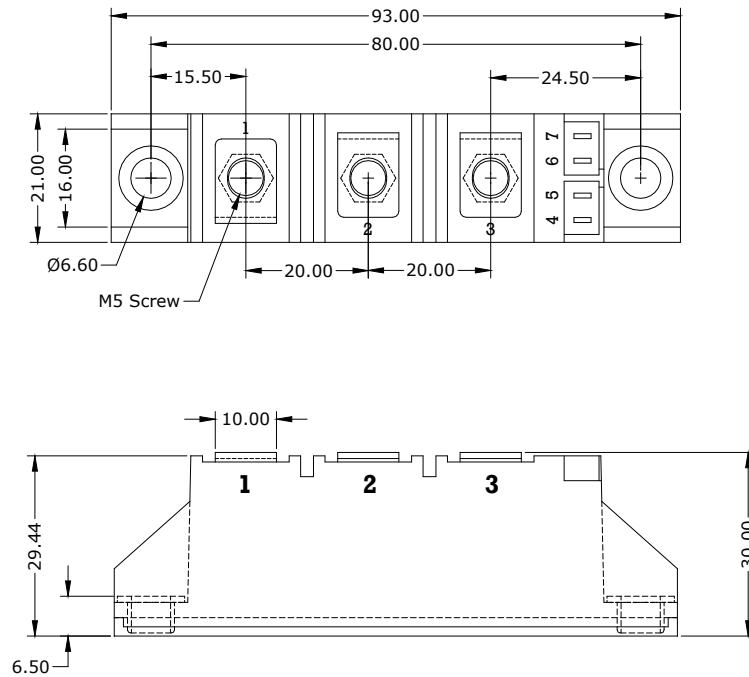
Thermal and Isolation Characteristics

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case, per Diode	R_{thJC}	0.28	$^\circ\text{C}/\text{W}$
Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-3 seconds)	V_{iso}	3000	V

Electrical Characteristics, (per Diode) at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Static Characteristics					
Reverse leakage current T _j = 150°C	I _R	-	-	10	mA
Forward voltage drop I _{FM} = π x I _{F(AV)} , T _j = 25 °C, t _p = 400us square wave	V _F	-	1.6	-	V

Package Outline Drawing



Disclaimer

These specifications may not be considered as a guarantee of components characteristics. Components have to be tested depending on intended application as adjustments may be necessary. The use of **iQXPRZ Power Inc.** components in life support appliances and systems are subject to written approval of **iQXPRZ Power Inc.**