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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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ISOPAC01\*\*
ISOPAC02\*\*
ISOPAC04\*\*

ISOPAC06\*\*
ISOPAC12\*\*

December 22, 1997

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# HIGH CURRENT, HIGH DENSITY, ISOLATED, SILICON POWER RECTIFIERS

- Low thermal impedance
- Small size and low weight
- High current applications
- Isolated for direct heatsink mounting
- High surge ratings

### QUICK REFERENCE DATA

- $V_R = 150V 1000V$
- $I_F = 15A$
- $t_{rr} = 10 \text{nS} 2 \mu \text{S}$
- I<sub>FSM</sub> ≥ 150A

#### **ABSOLUTE MAXIMUM RATINGS**

Device	Working Reverse Voltage	Average Rectified Current (I <sub>F(AV)</sub> ) @ T <sub>mb</sub>			1 Cycle Surge I <sub>FSM</sub> t <sub>P</sub> = 8.3mS		Repetitive Surge (I <sub>FRM</sub> )	Operating & Storage Temperature Range
Туре	(V <sub>RWM</sub> )	@ 55°C	100°C	125°C	@ 25 °C	@ 100°C	<b>@</b> 25 ℃	(T <sub>OP</sub> ) (T <sub>STG</sub> )
	Volts	Amps	Amps	Amps	Amps	Amps	Amps	°C
ISOPAC0103 ISOPAC0119 ISOPAC0112 ISOPAC0104 ISOPAC02111 ISOPAC0219	1000 1000 600 400 150 1000	15 10 15 15 15 15	11 8 11 11 10	8 6 8 7 8 6	150 150 150 150 175 150	100 80 100 80 175 100 80	25 15 25 25 24 25 15	-55 to +175 -55 to +175 -55 to +175 -55 to +175 -55 to +150 -55 to +175 -55 to +175
ISOPAC0212	600	15	11	8	150	100	25	-55 to +175
ISOPAC0204	400	15	11	8	150	80	25	-55 to +175
ISOPAC0211	150	15	10	7	175	175	24	-55 to +150
ISOPAC0403	1000	15	11	8	150	100	25	-55 to +175
ISOPAC0419	1000	10	8	6	150	80	15	-55 to +175
ISOPAC0412	600	15	11	8	150	100	25	-55 to +175
ISOPAC0404	400	15	11	8	150	80	25	-55 to +175
ISOPAC0411	150	15	10	7	175	175	24	-55 to +150
ISOPAC0603	1000	15	11	8	150	100	25	-55 to +175
ISOPAC0619	1000	10	8	6	150	80	15	-55 to +175
ISOPAC0612	600	15	11	8	150	100	25	-55 to +175
ISOPAC0604	400	15	11	8	150	80	25	-55 to +175
ISOPAC0611	150	15	10	7	175	175	24	-55 to +150
ISOPAC1203	1000	15	11	8	150	100	25	-55 to +175
ISOPAC1219	1000	10	8	6	150	80	15	-55 to +175
ISOPAC1212	600	15	11	8	150	100	25	-55 to +175
ISOPAC1204	400	15	11	8	150	80	25	-55 to +175
ISOPAC1211	150	15	10	7	175	175	24	-55 to +150

ISOPAC01\*\*
ISOPAC02\*\*

ISOPAC04\*\*
ISOPAC06\*\*

ISOPAC12\*\*

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### ELECTRICAL CHARACTERISTICS (apply per junction)

Device	Maximun Current		Maximum Forward Voltage	Maximum Reverse Recovery	
Туре	$T_{j} = 25  {}^{\circ}\text{C}$	T <sub>j</sub> = 100 °C	@ 9.0 A	Time	
	μΑ	μΑ	Volts	nS	
ISOPAC0103	1.0	20	1.2	2000	
ISOPAC0119	1.0	25	2.2	150	
ISOPAC0112	1.0	20	1.2	2000	
ISOPAC0104	1.0	20	1.5	150	
ISOPAC0111	10.0	500	1.1	30	
ISOPAC0203	1.0	20	1.2	2000	
ISOPAC0219	1.0	25	2.2	150	
ISOPAC0212	1.0	20	1.2	2000	
ISOPAC0204	1.0	20	1.5	150	
ISOPAC0211	1.0	500	1.1	30	
ISOPAC0403	1.0	20	1.2	2000	
ISOPAC0419	1.0	25	2.2	150	
ISOPAC0412	1.0	20	1.2	2000	
ISOPAC0404	1.0	20	1.5	150	
ISOPAC0411	10.0	500	1.1	30	
ISOPAC0603	1.0	20	1.2	2000	
ISOPAC0619	1.0	25	2.2	150	
ISOPAC0612	1.0	20	1.2	2000	
ISOPAC0604	1.0	20	1.5	150	
ISOPAC0611	10.0	500	1.1	30	
ISOPAC1203	1.0	20	1.2	2000	
ISOPAC1219	1.0	25	2.2	150	
ISOPAC1212	1.0	20	1.2	2000	
ISOPAC1204	1.0	20	1.5	150	
ISOPAC1211	10.0	500	1.1	30	

 $R_{\theta JMB} = 3^{o}C/W$  per junction.

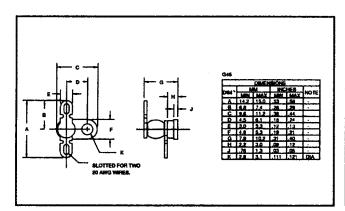
Non-isolated forms are available, consult factory for details.

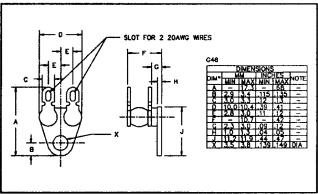
ISOPAC01\*\*

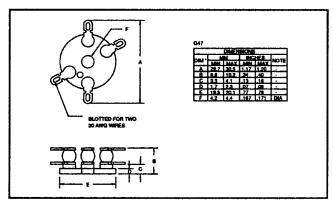
ISOPAC02\*\*

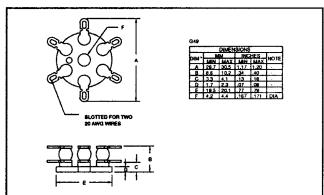
ISOPAC04\*\*

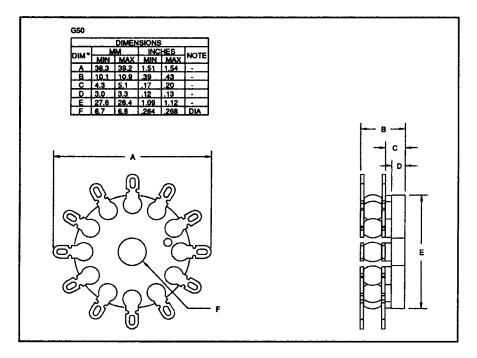
ISOPAC06\*\*
ISOPAC12\*\*













ISOPAC01\*\*
ISOPAC02\*\*

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ISOPAC12\*\*

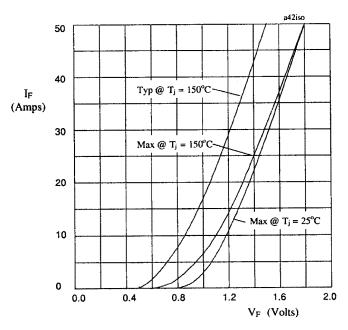


Figure 1. Forward voltage drop as a function of forward current for ISOPAC\*\*03 & ISOPAC\*\*12.

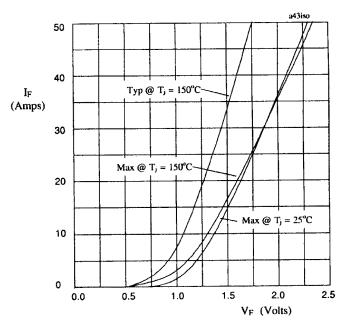


Figure 2. Forward voltage drop as a function of forward current for ISOPAC\*\*04.

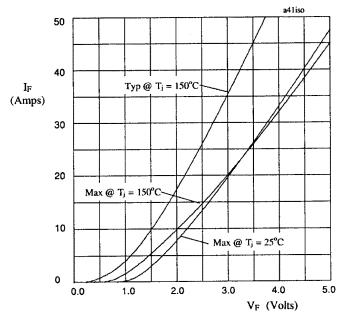


Figure 3. Forward voltage drop as a function of forward current for ISOPAC\*\*19.

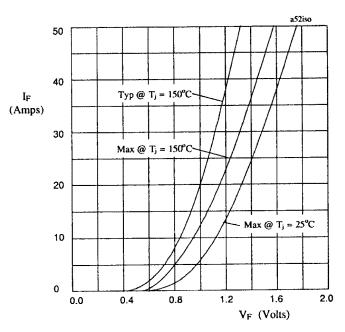


Figure 4. Forward voltage drop as a function of forward current for ISOPAC\*\*11.



ISOPAC01\*\* ISOPAC02\*\*

ISOPAC04\*\*

ISOPAC06\*\*
ISOPAC12\*\*

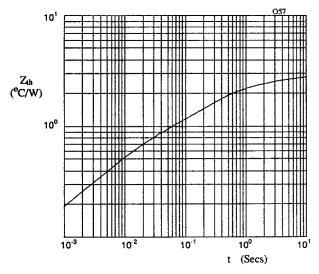


Figure 5. Typical transient thermal impedance characteristic.

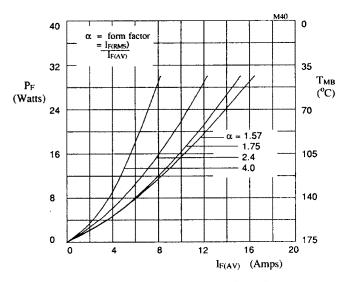


Figure 6. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for sinusoidal operation, for ISOPAC\*\*03 and ISOPAC\*\*12.

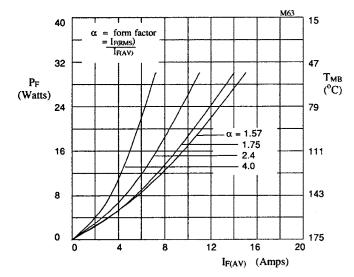


Figure 7. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for sinusoidal operation, for ISOPAC\*\*04.

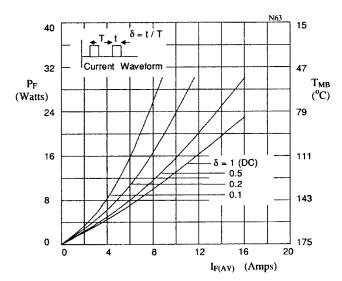


Figure 8. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for square wave operation, for ISOPAC\*\*04



ISOPAC01\*\*

ISOPAC02\*\* ISOPAC04\*\*

ISOPAC06\*\*

ISOPAC12\*\*

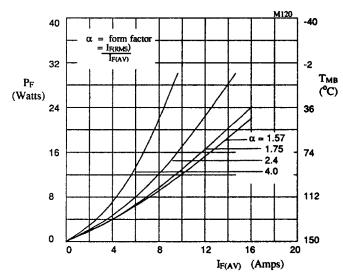


Figure 9. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for sinusoidal operation, for ISOPAC\*\*11.

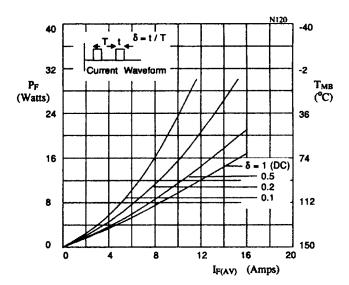


Figure 10. Forward power dissipation and maximum allowable mounting base temperature as a function of forward current for square wave operation, for ISOPAC\*\*11.