Microsemi
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MX086-4

Features

- Standard spacecraft screening is per Microsemi PS11.50 “S” (no suffix letter required, MX086-4 is only “S” screened)
- Designed for battery cell bypass
- Passivated mesa structure for very low leakage currents
- 4 die stacked in one package
- Hermetically sealed, ceramic surface mount power package

60 Volts
50 Amps
2 µs

BATTERY BYPASS CHARGE DIODE

Maximum Ratings @ 25°C (unless otherwise specified)

DESCRIPTION	SYMBOL	MAX.	UNIT
Peak Repetitive Reverse Voltage **(NOT A BLOCKING DIODE!)**	V_{RRM}	60	Volts
Average Rectified Forward Current, Tc≤ 125°C	$I_{F(ave)}$	50	Amps
Nonrepetitive Peak Surge Current, tp= 8.3 ms, half-sinewave	I_{FSM}	300	Amps
Junction Temperature Range (for bypass operation)	T_j	-20 to +275	°C
Storage Temperature Range	T_{stg}	-65 to +175	°C
Thermal Resistance, Junction to Case:	θ_{JC}	0.9	°C/W

DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP.	MAX	UNIT
Reverse (Leakage) Current	IR	VR= 60 Vdc, Tc= 25°C		1	10	µA
Forward Voltage	VF1	IF= 100 mA, Tc= 25°C	2.5		3.0	V
pulse test, pw= 300 µs, d/c≤ 2%	VF2	IF= 5 A, Tc= 25°C	2.75		3.73	V
	VF3	IF = 10A, Tc= 25°C	3.2		3.86	

Mechanical Outline