

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 μ s

**BATTERY
 BYPASS
 CHARGE DIODE**

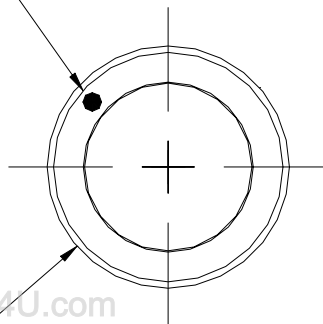
Maximum Ratings @ 25°C (unless otherwise specified)

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

DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP.	MAX	UNIT
Reverse (Leakage) Current	IR	$V_R = 60$ Vdc, $T_c = 25^\circ\text{C}$		1	10	μA
Forward Voltage pulse test, $p_w = 300$ μs , $d/c \leq 2\%$	VF1	$I_F = 100$ mA, $T_c = 25^\circ\text{C}$	2.5		3.0	V
	VF2	$I_F = 5$ A, $T_c = 25^\circ\text{C}$	2.75		3.73	V
	VF3	$I_F = 10$ A, $T_c = 25^\circ\text{C}$	3.2		3.86	V

Mechanical Outline

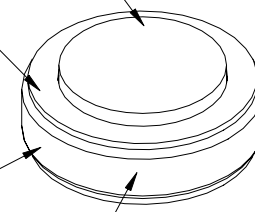
MARK: CATHODE DOT
 USE BLACK INK



TUNGSTEN, Ni PLATE
 2 PLACES

ALLOY 42, Ni PLATE
 2 PLACES

MARK: SER#
 USE BLACK INK



CERAMIC