



EM520B

GENERAL PURPOSE RECTIFIER

Rev.1.2

DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ Glass passivated chip junction
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directive

2 (Cathode)

RoHS
COMPLIANT

Cathode

2

Anode

1

1 (Anode)

DO-41 symbol

MECHANICAL DATA

- ✧ Case: JEDEC DO-41 molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.30 gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

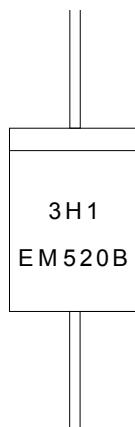
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	EM520B	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	2000	V
Maximum RMS voltage	V _{RMS}	1400	V
Maximum DC blocking voltage	V _{DC}	2000	V
Maximum average forward current at T _L =100°C	I _{F(AV)}	1.0	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30	A
Maximum forward voltage @ I _F =1A	V _F	1.15	V
Maximum DC reverse current at rated DC blocking voltage	I _R	5	µA
T _j =25°C		400	µA
T _j =150°C			
Typical junction capacitance V _R =4.0V, f=1MHz	C _J	8	pF
Operating junction and storage temperature range	T _j , T _{stg}	-55 to +150	°C

THERMAL RESISTANCES

Symbol	Parameter	EM520B	Unit
$R_{th(j-a)}$	Junction to ambient	75	°C/W

MARKING



EM	Package:DO-41
5	$I_{F(AV)}=1A$
20	$V_{RRM}:2000V$
B	Chip Size B

xH1: Month, 1、2、3 ~ 9、A、B、C

3x1:

2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

3Hx: Batch number

PACKAGE MECHANICAL DATA

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.40	-	1.000	-
B	4.90	5.30	0.193	0.209
C	0.69	0.89	0.027	0.035
D	2.40	2.80	0.095	0.110

PACKAGE INFORMATION-DO-41

OUTLINE	UNIT WEIGHT (g/PCS) typ.	INNER BOX (PCS)	PER CARTON (PCS)
Bulk	0.30	5,000	50,000

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

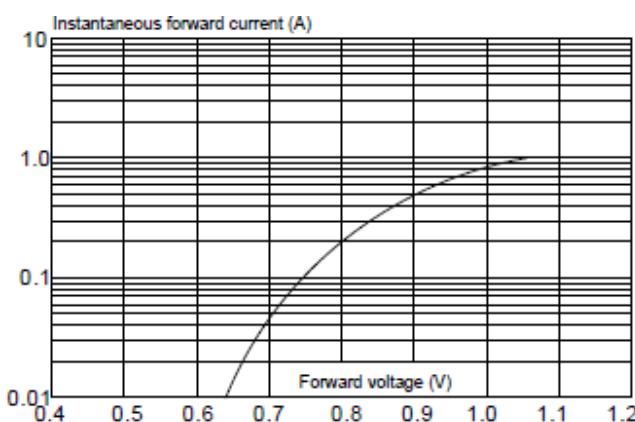


FIG.2: Typical reverse characteristics

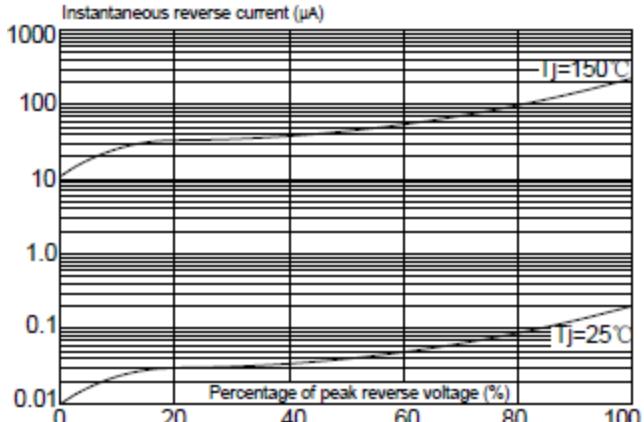


FIG.3: Maximum non-repetitive peak forward surge current

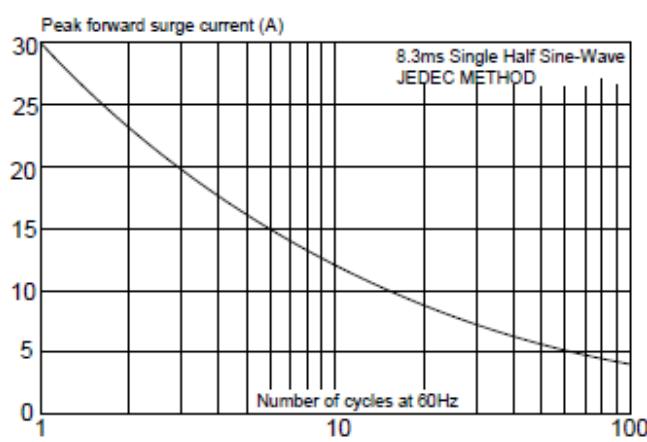
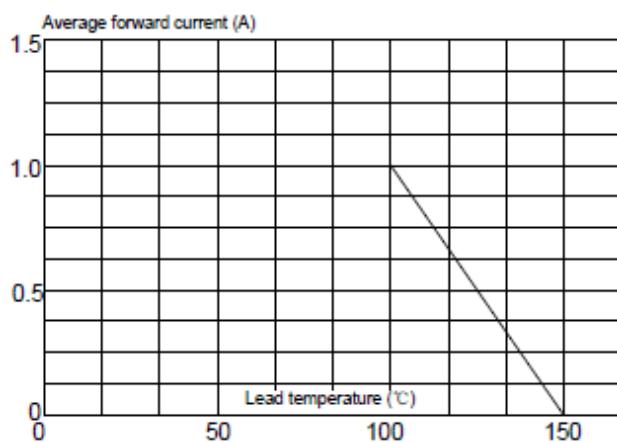


FIG.4: Forward current derating curve



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