



SURFACE MOUNT SILICON RECTIFIERS

FEATURES

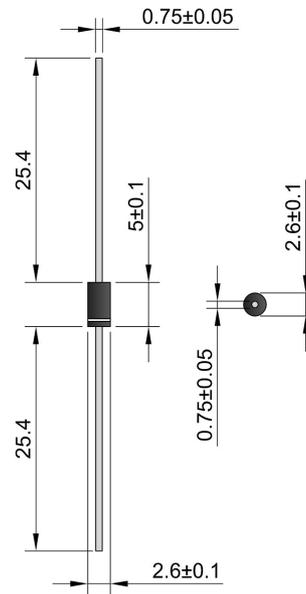
- Low Forward Voltage Drop
- Low Leakage
- High Current Capability
- High Surge Current Capability
- Plastic Case Material has UL Flammability Classification Rating 94V-O

MECHANICAL DATA

- Case: DO-41 TYPE molded Plastic
- Polarity: as marked
- Weight: 0.35 grams(approx)
- Lead Free:For RoHS/Lead Free Version, Green molding compound as per IEC61249 Std

DO-41

Unit: mm



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Parameter Symbol	Symbol	EM512A	EM514A	EM516A	EM518A	EM520A	Unit
Device marking code		EM512A	EM514A	EM516A	EM518A	EM520A	
Maximum repetitive peak reverse voltage	V _{RRM}	1200	1400	1600	1800	2000	V
Maximum RMS voltage	V _{RMS}	840	980	1120	1260	1400	V
Maximum DC blocking voltage	V _{DC}	1200	1400	1600	1800	2000	V
Maximum average forward rectified current	I _{F(AV)}	1.5					A
Peak forward surge current:8.3ms single half sine-wave superimposed on rated load	I _{Fsm}	30					A
Maximum instantaneous forward voltage at 1A	V _F	1.20					V
Maximum leakage current T _J =25°C Maximum leakage current T _J =100°C	I _R	5 50					uA
Typical Junction Capacitance (Note1)	C _J	25		18			pF
Typical thermal resistance (Note2)	R _{thA}	≤55					°C/W
Operating temperature range	T _J	-55 to +150					°C
Storage temperature range	T _{STG}	-55 to +150					°C

Note: (1).Measured at 1.0MHz and applied reverse voltage of 4.0VDC
(2).Thermal resistance from junction to ambient at 9.5mm lead length, **P.C.B.** mounted.



RATING AND CHARACTERISTIC CUEVES

Fig. 1 Rated forward current vs. ambient temperature

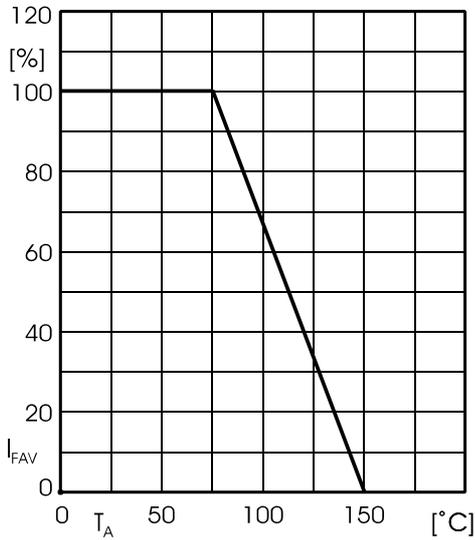


Fig. 2 Forward characteristics (typical values)

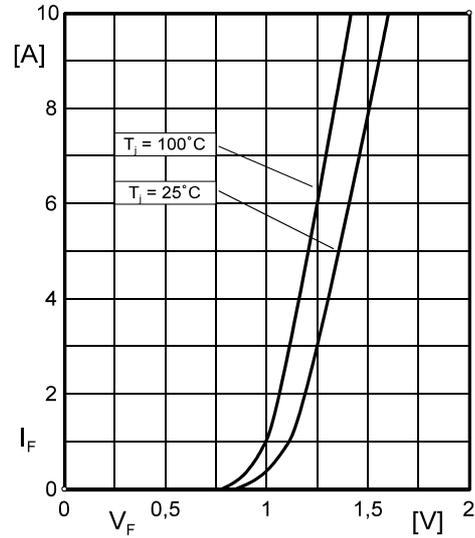


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

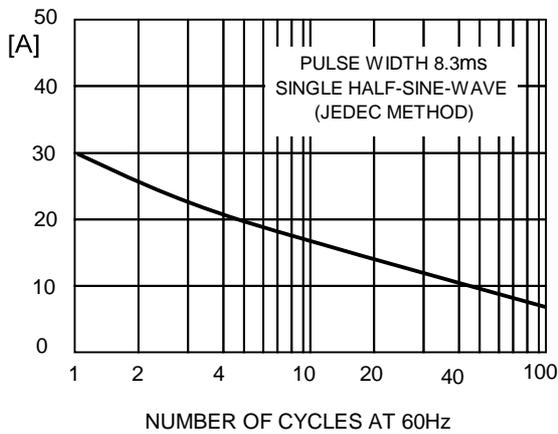
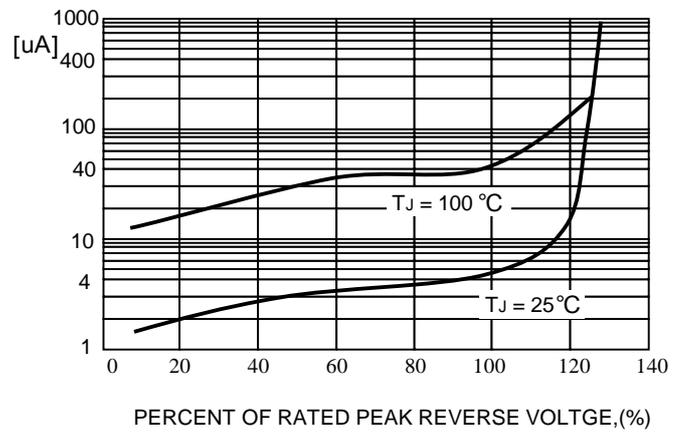


FIG.4-TYPICAL REVERSE CHARACTERISTICS





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