

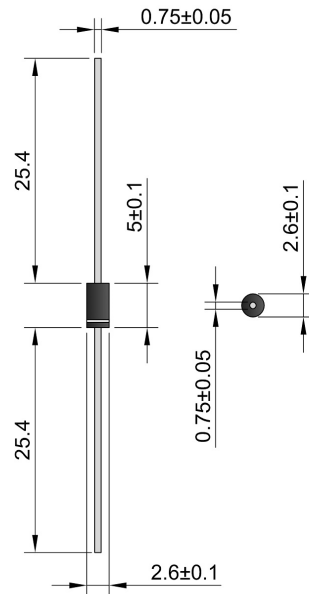
# EM512G THRU EM520G GLASS PASSIVATED RECTIFIER

## FEATURES

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

DO-41

Unit: mm



## MECHANICAL DATA

- Case: DO-41 TYPE molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: as marked
- Weight: 0.35 grams (approx)
- Lead Free: For RoHS/Lead Free Version, Green molding compound as per IEC61249 Std

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Parameter Symbol	Symbol	EM512G	EM514G	EM516G	EM518G	EM520G	Unit
Device marking code		EM512G	EM514G	EM516G	EM518G	EM520G	
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	$I_{F(AV)}$	1.0					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	$V_F$	1.15					V
Maximum leakage current $T_J=25^\circ\text{C}$ Maximum leakage current $T_J=100^\circ\text{C}$	$I_R$	5 50					$\mu\text{A}$
Typical Junction Capacitance (Note1)	$C_J$	25	18				pF
Typical thermal resistance (Note2)	$R_{thA}$	$\leq 55$					$^\circ\text{C}/\text{W}$
Operating temperature range	$T_J$	-55 to +175					$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +175					$^\circ\text{C}$

**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.

Fig. 1 Rated forward current vs. ambient temperature

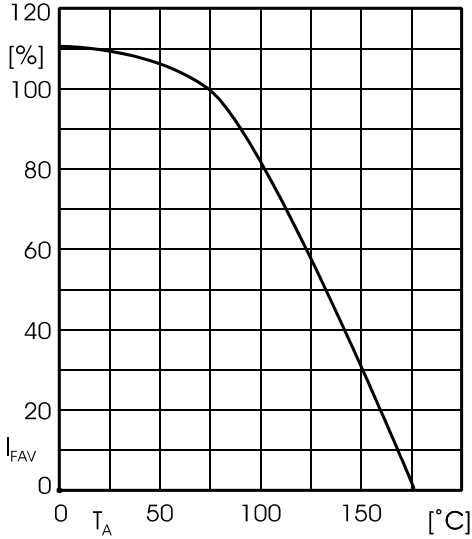


Fig. 2 Forward characteristics ( typical values )

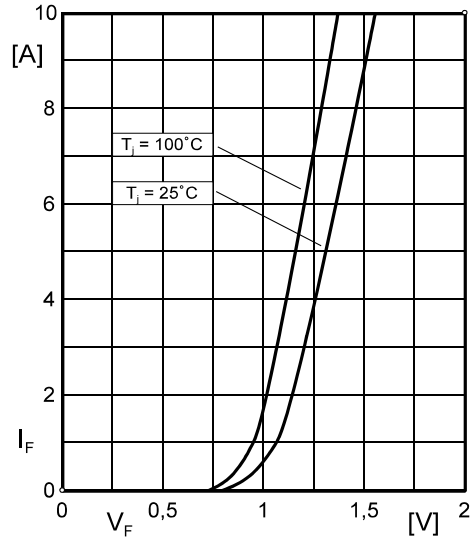


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

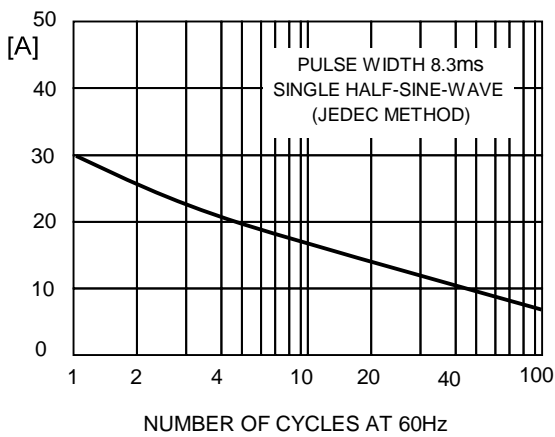


FIG.4-TYPICAL REVERSE CHARACTERISTICS

