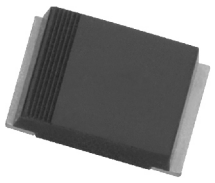
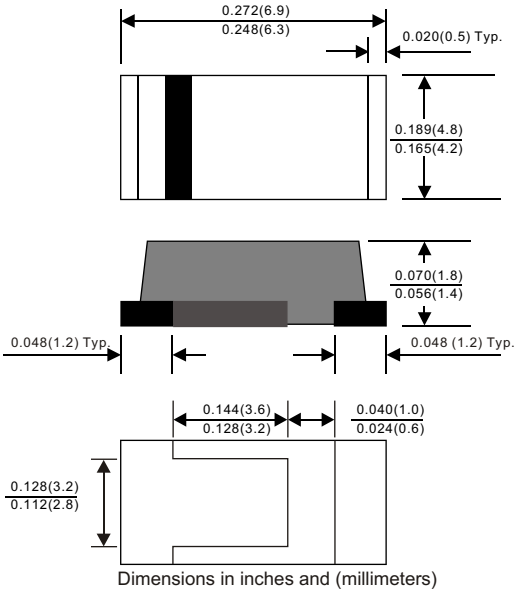
FM520-T1 thru FM5200-T1

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 TO 200 VOLTS CURRENT - 5.0 AMPERES



SMC-T1



Dimensions in inches and (millimeters)

FEATURES

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

MECHANICAL DATA

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AB / SMC-T1
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any
- Weight : Approximated 0.18 gram

Maximum ratings (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	I_O			5.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			75	A
Reverse current	V_R = V_{RRM} T_A = 25°C	I_R			0.5	mA
	V_R = V_{RRM} T_A = 125°C				20	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		5		°C/W
Storage temperature		T_{STG}	-65		+175	°C

SYMBOLS	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	Operating temperature T_J, (°C)
FM520-T1	20	14	20	0.55	-55 to +125
FM530-T1	30	21	30		
FM540-T1	40	28	40		
FM550-T1	50	35	50	0.75	-55 to +150
FM560-T1	60	42	60		
FM580-T1	80	56	80	0.85	
FM5100-T1	100	70	100		
FM5150-T1	150	105	150	1.00	
FM5200-T1	200	140	200		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

RATINGS AND CHARACTERISTIC CURVES FM520-1 THRU FM5200-T1

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

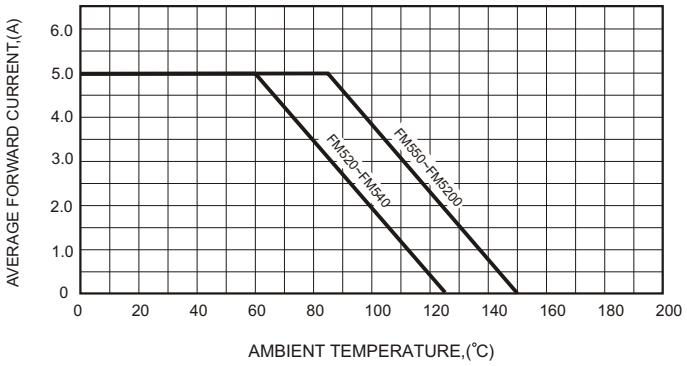


FIG.2-TYPICAL FORWARD CHARACTERISTICS

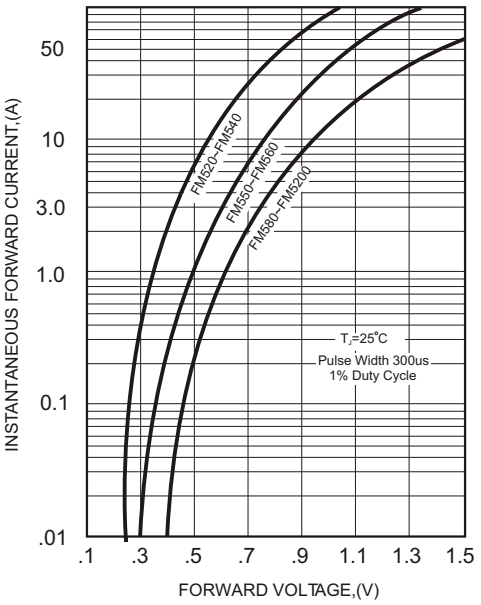


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

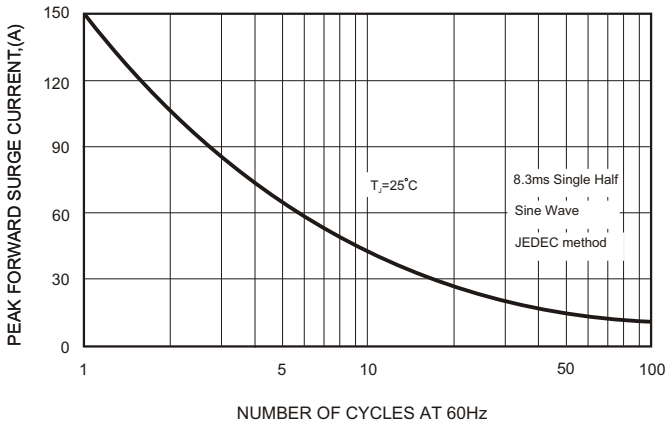


FIG.4-TYPICAL JUNCTION CAPACITANCE

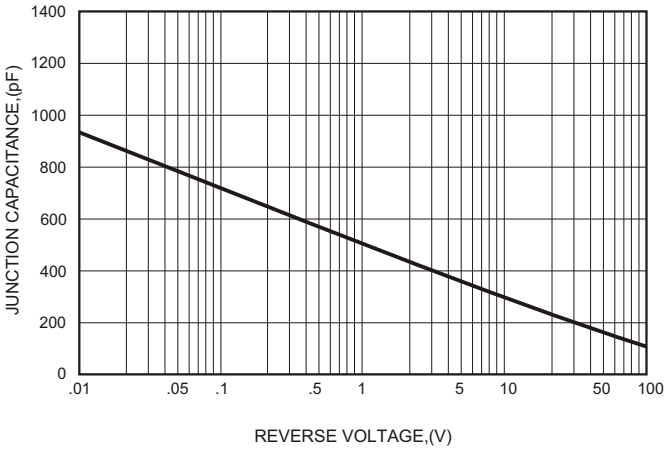


FIG.5 - TYPICAL REVERSE CHARACTERISTICS