SM Technology Co., Limited

10A05 THRU 10A10

GENERAL PURPOSE PLASTIC RECTIFIER

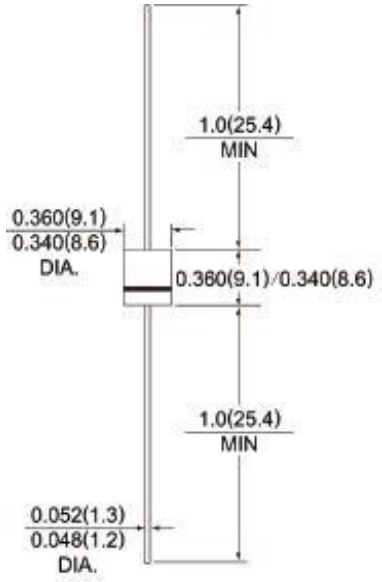
Reverse Voltage 50 to 1000 Volts

Forward Current 10.0 Amperes

Features:

1. Low coat construction
2. Low forward voltage drop
3. Low reverse leakage
4. High forward surge current capability
5. High temperature soldering guaranteed: 260℃/10 secods/.375"(9.5mm)lead length at 5 lbs(2.3kg) tension

R-6



Mechanical Data:

1.Case: Transfer molded plastic 2.Epoxy: UL94V-O rate flame retardant
3.Polarity: Color band denotes cathode end
4. Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
5. Mounting position: Any
6. Weight: 0.07 ounce, 2.1 grams

Maximum Ratings and Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load derate current by 20%

	Symbols	10A05	10A1	10A2	10A4	10A6	10A8	10A10	Units
Maximum repetitive peak reverse voltage	V_{RMM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current @T_A=60℃	$I_{(AV)}$	10.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	200.0							Amps
Maximum forward voltage at 6.0A DC	V_F	1.00							Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	10.0 100							μA
Typical junction capacitance (Note 1)	C_J	100.0							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	10.0							℃/W
Operating Temperature Range	T_J	-65 to +150							℃
Storage Temperature Range	T_{STG}	-65 to +150							℃

Notes:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V Volts.
2. Thermal Resistance from Junction to Ambient .375" (9.5mm) lead length.

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RATINGS AND CHARACTERISTIC CURVES 10A05 thru 10A10

FIG.1-TYPICAL FORWARD CHARACTERISTICS

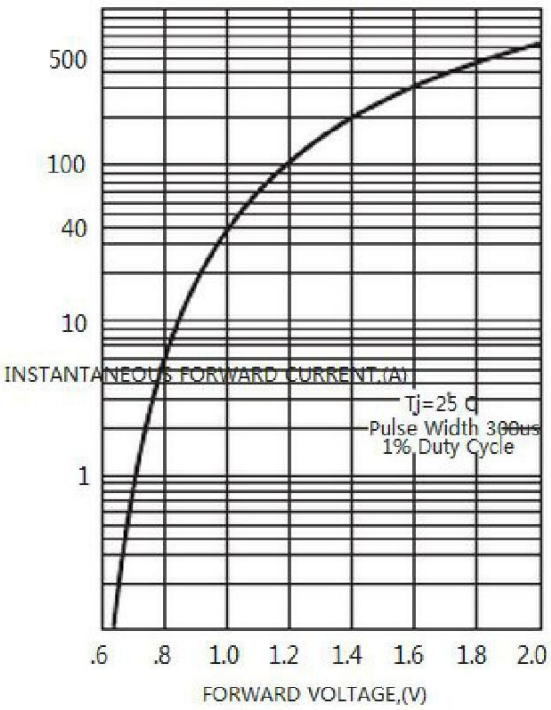

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

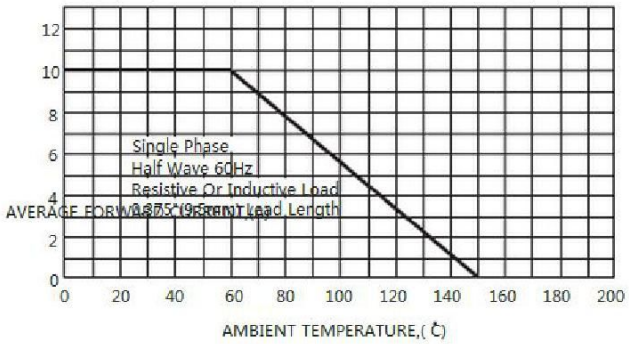

FIG.3 - TYPICAL REVERSE CHARACTERISTICS

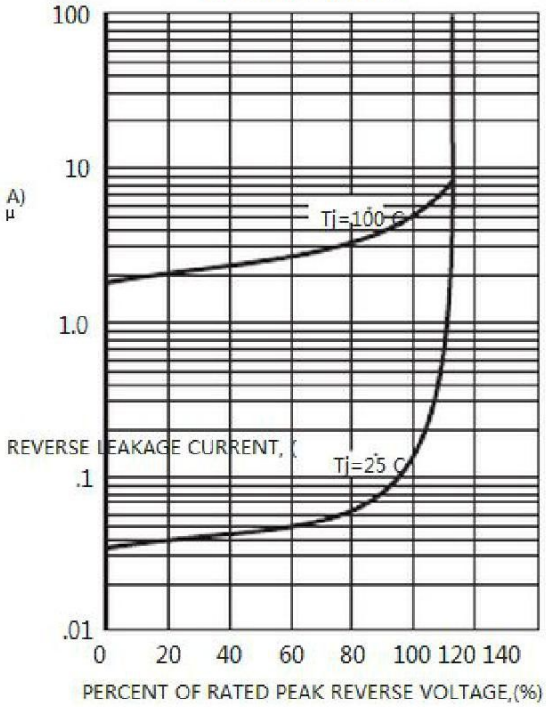

FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

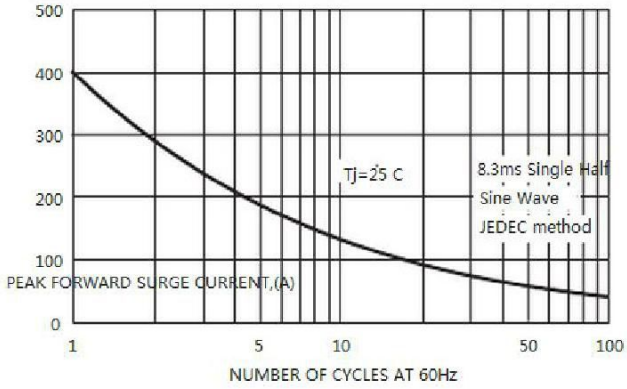

FIG.5 - TYPICAL THERMAL RESISTANCE VS. LEAD LENGTH