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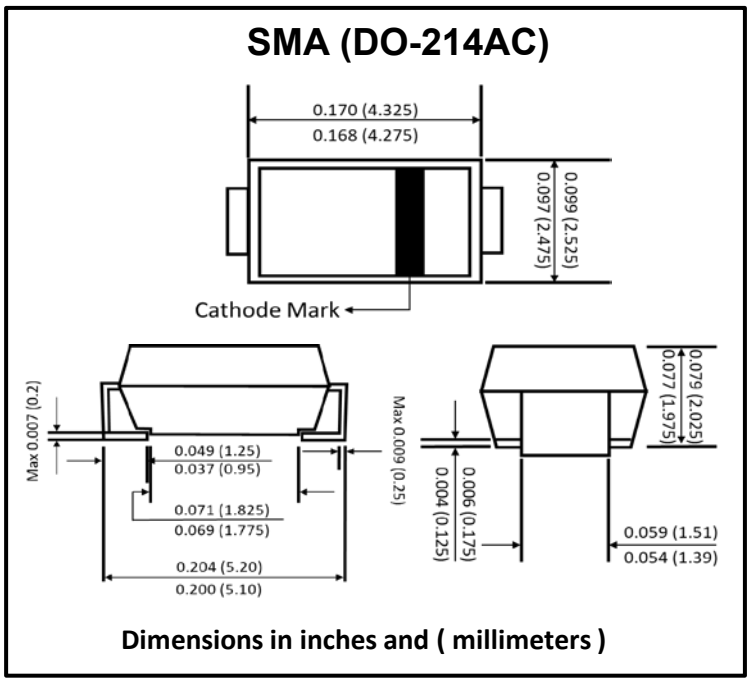
D1FL20U

SURFACE MOUNT SUPER FAST RECTIFIERS

PRV : 200 Volts
Io : 1.1 Ampere



FEATURES :

* Glass passivated junction chip
* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Super fast recovery time
* Pb / RoHS Free

MECHANICAL DATA :

* Case : SMA Molded plastic
* Epoxy : UL94V-0 rate flame retardant
* Lead : Lead Formed for Surface Mount
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.067 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (If not specified Tl=25 °C)

RATING	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	V
Maximum RMS Voltage	V_{RMS}	140	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Average Forward Current (50 Hz sine wave, R - load , T_a = 25 °C)	I_O	1.1 (on aluminum substrate) 0.84 (on glass-epoxy substrate)	A
Maximum Peak Forward Surge Current (50 Hz sine wave, Non - repettitive 1 cycle peak value, T_j =25 °C)	I_{FSM}	20	A
Maximum Peak Forward Voltage at I_F = 1.1 A	V_F	0.98	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10	μA
Maximum Reverse Recovery Time (Note 1)	Trr	35	ns
Maximum Thermal Resistance Junction to Lead	$R_{\Theta JL}$	23	°C/W
Maximum Thermal Resistance Junction to Ambient	$R_{\Theta JA}$	108 (on aluminum substrate) 157 (on glass-epoxy substrate)	°C/W
Storage Temperature Range	T_{STG}	- 55 to + 150	°C

Notes :

(1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.

RATING AND CHARACTERISTIC CURVES (D1FL20U)

FIG.1 - DERATING CURVE

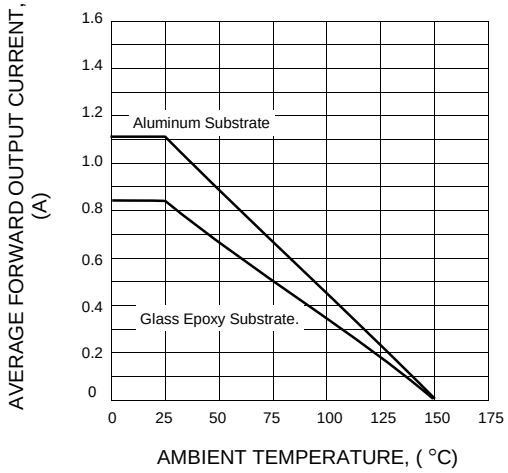


FIG.2 - PEAK SURGE FORWARD CAPABILITY

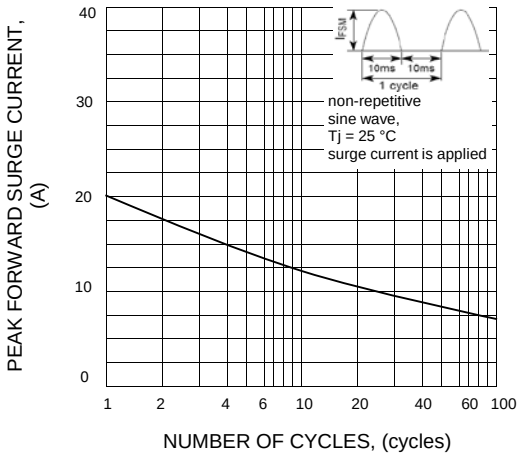


FIG.3 - FORWARD CHARACTERISTICS

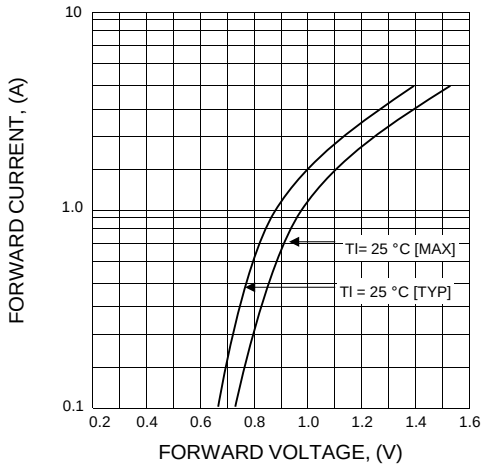


FIG.4 - JUNCTION CAPACITANCE