

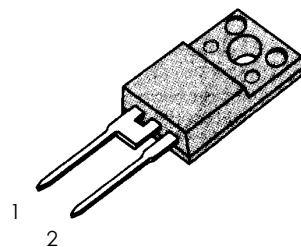
FEATURES

- * Ultrafast with Soft Recovery ($T_{rr} < 50\text{ns}$)
- * Low Forward Voltage ($V_F=1.2\text{V}$ at $I_F=20\text{A}$)

APPLICATIONS

- * Power Switching Circuits
- * Output rectifiers
- * Freewheeling Diodes
- * Switching Mode Power Supply

TO-220F



MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V_{RRM}	400	V
Average Rectified Forward Current, $T_C=100\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	20	A
Non-repetitive Peak Surge Current (Half-wave, Single Phase, 60Hz)	I_{FSM}	200	A
Operating Junction and Storage Temperature	T_J, T_{STG}	-65 ~ 150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

Thermal Resistance - Junction to Case	$R_{\theta JC}$	2.3	$^{\circ}\text{C/W}$
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ELECTRICAL CHARACTERISTICS

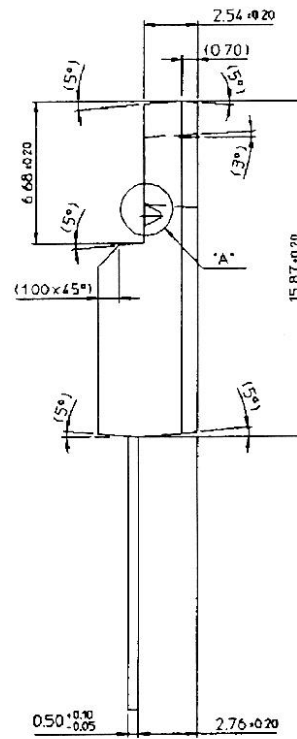
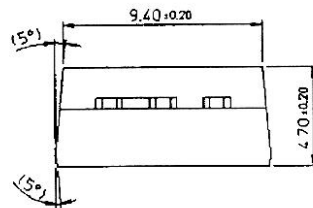
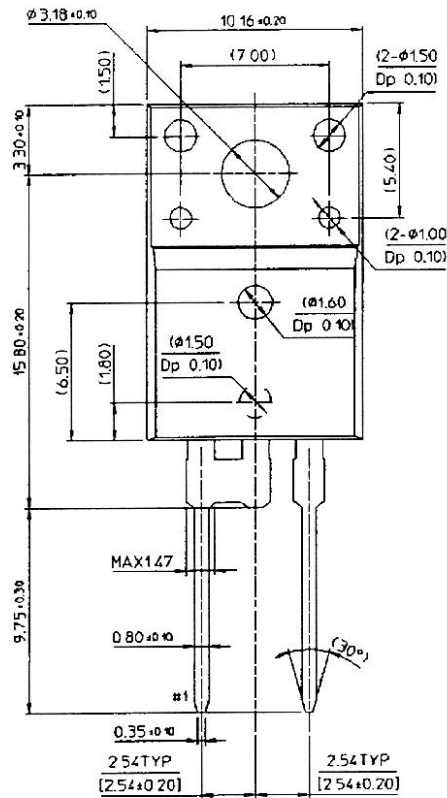
Characteristics	Symbol	Min	Typ	Max	Units
Maximum Instantaneous Forward Voltage (1) ($I_F = 20A$, $T_C = 100\text{ }^{\circ}C$) ($I_F = 20A$, $T_C = 25\text{ }^{\circ}C$)	V_F	- -	- 1.2	1.2 1.4	V
Maximum Instantaneous Reverse Current (1) (Rated DC Voltage, $T_C = 100\text{ }^{\circ}C$) (Rated DC Voltage, $T_C = 25\text{ }^{\circ}C$)	I_R	- -	- -	200 20	μA
Maximum Reverse Recovery Time ($I_F = 20A$, $di/dt = -200A/\mu s$)	t_{rr} I_{rr} Q_{rr}	- - -	- - -	50 5.5 138	ns A nC
Avalanche Energy	W_{AVL}	1.0	-	-	mJ

(1) Pulse Test : Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$

SDS20U40S

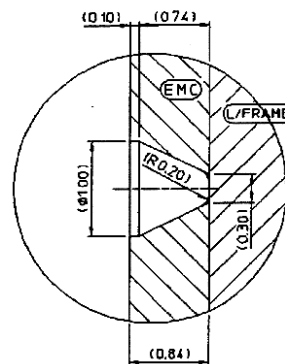
POWER RECTIFIER

PACKAGE DIMENSION



Unit : mm

DETAIL "A"



NOTE

1. THESE DIMENSIONS DO NOT INCLUDE MOLD PROTRUSION
2. () IS REFERENCE
3. [] IS ASSY OUT QUALITY

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