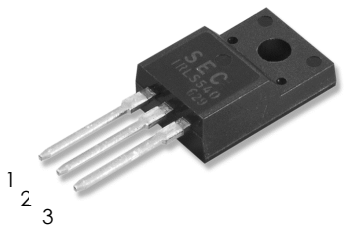
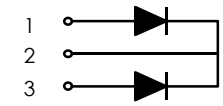
SDS10U60DN POWER RECTIFIER

FEATURES

* High Voltage and High Reliability
* High Speed Switching (Trr=70ns)
* Low V_F in Turn on (V_F=1.7V at I_F=10A)

TO-220F





APPLICATIONS

* General Purpose
* Switching Mode Power Supply
* Free Wheeling Diode for Motor Application
* Power Switching Circuit

MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
Average Rectified Forward Current, T_C=100 °C	$I_{F(AV)}$	10	A
Non-repetitive Peak Surge Current (Half-wave, Single Phase, 60Hz)	I_{FSM}	60	A
Operating Junction and Storage Temperature	T_J, T_{STG}	-65 ~ 150	°C

THERMAL CHARACTERISTICS

Thermal Resistance- Junction to Case	$R_{\theta JC}$	2.5	°C/W

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ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Typ	Max	Units
Maximum Instantaneous Forward Voltage (1)	V_F			
(I_F = 10A, T_C = 100 °C)		-	2	V
(I_F = 10A, T_C = 25 °C)		1.7	2.2	
Maximum Instantaneous Reverse Current (1)	I_R			
(Rated DC Voltage, T_C = 100 °C)		10	50	μA
(Rated DC Voltage, T_C = 25 °C)		1	5	
Maximum Reverse Recovery Time	trr	70	90	ns
(I_F = 10A, di/dt = 200A/μs)	Irr	4.5	6	A
	Qrr	160	270	nC

(1) Pulse Test : Pulse Width = 300μs, Duty Cycle ≤ 2.0%

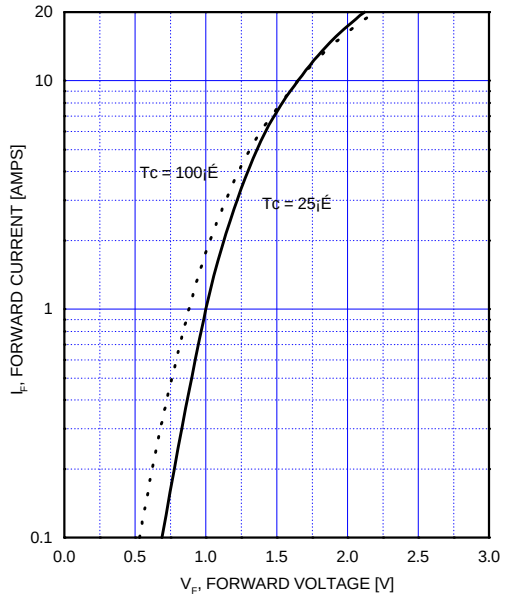

Fig.1 Typical Forward Voltage Drop vs. Forward Current

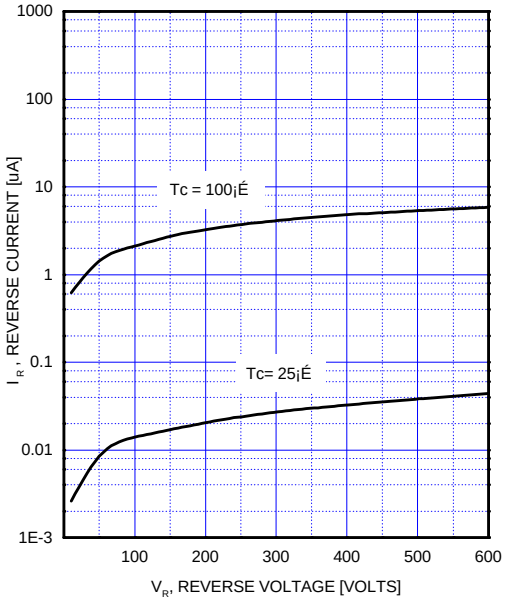

Fig.2 Reverse Voltage vs. Reverse Current

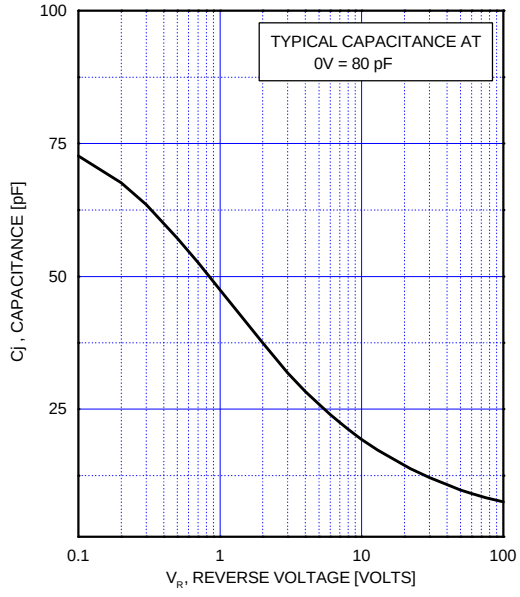

Fig.3 Typical Capacitance

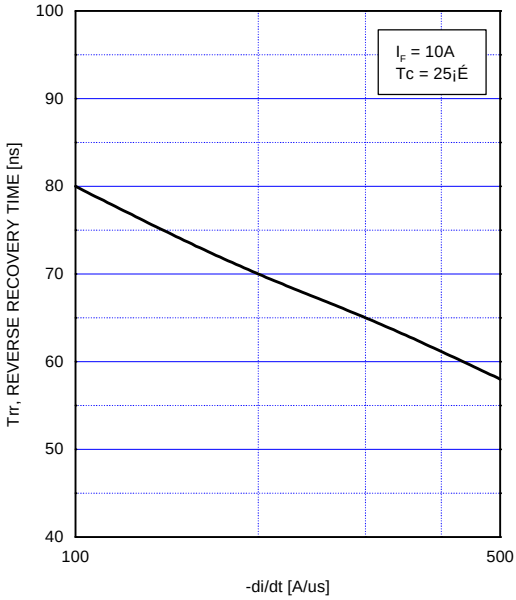

Fig.4 Typical Reverse Recovery Time vs. di/dt

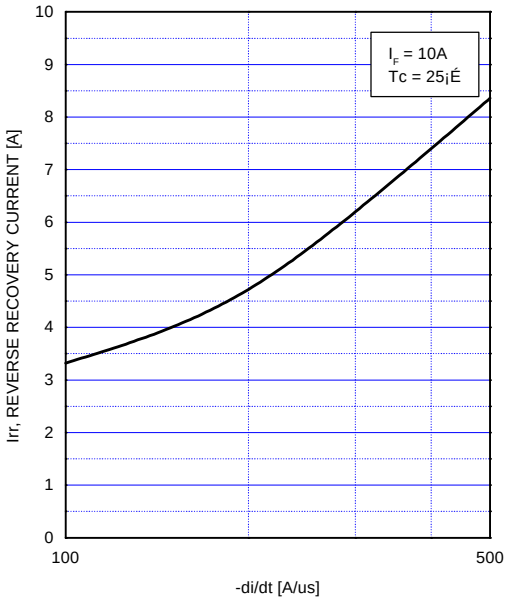

Fig.5 Typical Reverse Recovery Current vs. di/dt

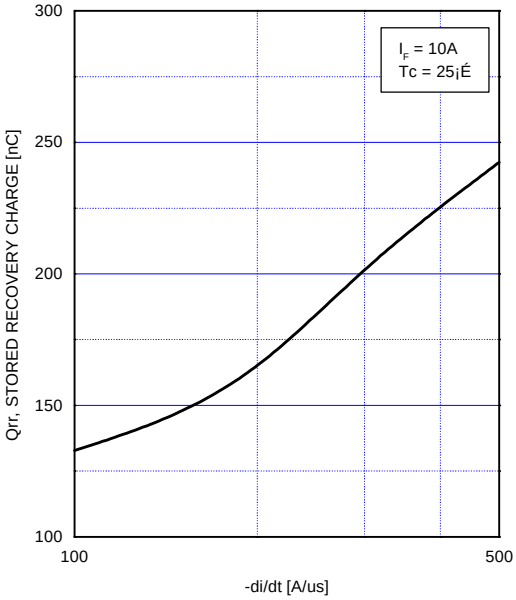

Fig.6 Typical Stored Charge vs. di/dt

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