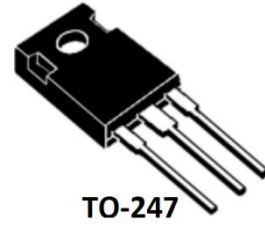


ESTF100D60SU

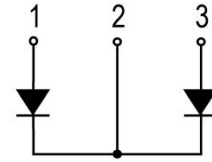
Features

- Repetitive Reverse Voltage : $V_{RRM} = 650V$
- Low Forward Voltage Drop : $V_F(\text{typ.}) = 1.4V$
- Average Forward Current : $I_F(\text{AV.}) = 100A$ @ $T_c = 100^\circ C$
- Ultra-Fast Reverse Recovery Time : $t_{rr}(\text{typ.}) = 60ns$
- Extensive Characterization of Recovery Parameters
- Reduced EMI and RFI



Applications

- Motor Drives, Welding



Absolute Maximum Ratings @ $T_c = 25^\circ C$

Symbol	Parameter	ratings	Unit
V_{RRM}	Repetitive peak reverse voltage @50 μA	650	V
$I_F(\text{AV})$	Average forward current @per	@ $T_c = 25^\circ C$	50x2
		@ $T_c = 100^\circ C$	50x2
I_{FSM}	Peak one Cycle Surge Forward ,Current (Non-Repetitive)	400	A
I^2t	I^2t for Fusing Value for One Cycle Current, $t_W = 8.3ms$, $T_j = 25^\circ C$ Start	8.13×10^3	A^2S
T_j	Junction Temperature	-40~+175	$^\circ C$
T_{STG}	Storage temperature range	-40~+150	$^\circ C$
P_D	Power Dissipation	428	W
	Mounting Torque(M3)	1.1	N.m
	Weight	6	g

Electrical Specifications @ $T_c = 25^\circ C$

Symbol	Parameter		Ratings			Unit
			Min	Typ	Max	
V_{RRM}	$I_R = 100\mu A$		650			V
I_R	$T_j = 125^\circ C$	$V_R = V_{RRM}$	-	-	800	μA
V_F	$T_j = 25^\circ C$	$I_F = 100A$		1.45	1	V
	$T_j = 125^\circ C$			1.4		V
T_{rr}	$I_F = 100A$, $V_R = 400V$, $di_F/dt = -1200A/\mu s$	$T_j = 25^\circ C$		60	75	ns

$R_{th(j-c)}$	Thermal resistance from junction to case	TO-247			0.35	$^{\circ}\text{C}/\text{W}$
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Package

