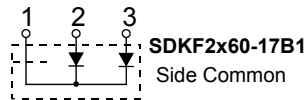
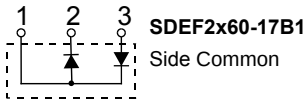


SDEF2x60-17B1,SDKF2x60-17B1

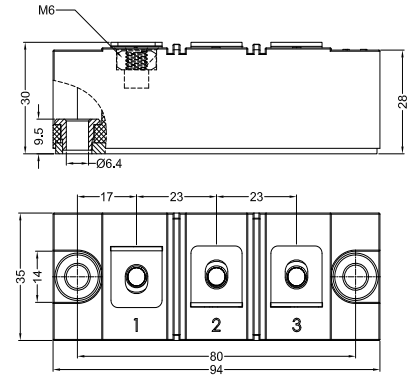
Soft Recovery Behaviour Ultra Fast Recovery Epitaxial Diode Modules



	VRSM V	VRRM V
SDEF2x60-17B1	1700	1700

	VRSM V	VRRM V
SDKF2x60-17B1	1700	1700

Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions	Maximum Ratings	Unit
IFRMS IFAVM IFRM	T _C =85°C T _C =85°C; rectangular, d=0.5 t _p <10us; rep. rating, pulse width limited by T _{VJM}	90 2 x 60 90	A
IFSM	T _{VJ} =45°C t=10ms (50Hz), sine t=8.3ms (60Hz), sine	1000 1100	A
	T _{VJ} =150°C t=10ms(50Hz), sine t=8.3ms(60Hz), sine	890 990	
I ² t	T _{VJ} =45°C t=10ms (50Hz), sine t=8.3ms (60Hz), sine	5000 5500	A ² s
	T _{VJ} =150°C t=10ms(50Hz), sine t=8.3ms(60Hz), sine	4400 4900	
T _{VJ} T _{stg} T _{Hmax}		-40...+150 -40...+125 110	°C
P _{tot}	T _{case} =25°C	250	W
V _{ISOL}	50/60Hz, RMS t=1min I _{ISOL} ≤1mA t=1s	4000 4500	V~
M _d	Mounting torque (M6) Terminal connection torque (M6)	2.50-4/22-35 2.50-4/22-35	Nm/lb.in.
ds	Creeping distance on surface	12.7	mm
dA	Strike distance through air	9.6	mm
a	Maximum allowable acceleration	50	m/s ²
Weight		158	g

SDEF2x60-17B1,SDKF2x60-17B1

Soft Recovery Behaviour Ultra Fast Recovery Epitaxial Diode Modules

Symbol	Test Conditions	Characteristic Values		Unit
		typ.	max.	
I_R	$T_{VJ}=25^{\circ}\text{C}; V_R=V_{RRM}$		0.4	mA
	$T_{VJ}=25^{\circ}\text{C}; V_R=0.8 \cdot V_{RRM}$		0.4	
	$T_{VJ}=125^{\circ}\text{C}; V_R=0.8 \cdot V_{RRM}$		20	
V_F	$I_F=60\text{A}; T_{VJ}=125^{\circ}\text{C}$	2.05	2.45	V
	$T_{VJ}=25^{\circ}\text{C}$	2.25	2.65	
	$I_F=120\text{A}; T_{VJ}=125^{\circ}\text{C}$	2.35	2.75	
	$T_{VJ}=25^{\circ}\text{C}$	2.55	2.99	
V_{TO}	For power-loss calculations only		1.50	V
r_T	$T_{VJ}=125^{\circ}\text{C}$		8.85	m Ω
R_{thJH} R_{thJC}	DC current DC current		0.230 0.200	K/W
t_{rr}	$I_F=1\text{A}; T_{VJ}=25^{\circ}\text{C} -di/dt=200\text{A/us}$	155	210	ns
	$I_F=60\text{A}; T_{VJ}=125^{\circ}\text{C} -di/dt=200\text{A/us}$	750	860	
Q_{rr}	$T_{VJ}=125^{\circ}\text{C}, I_F=60\text{A}, -di/dt=500\text{A/us}, V_R=1200\text{ V}$	16	20	μC
E_{rr}	$T_{VJ}=125^{\circ}\text{C}, I_F=60\text{A}, -di/dt=500\text{A/us}, V_R=1200\text{ V}$	5		mJ
I_{RM}	$V_R=1200\text{V}; T_{VJ}=25^{\circ}\text{C}$		40	A
	$-di/dt=500\text{A/us}; T_{VJ}=125^{\circ}\text{C}$		60	A

FEATURES

- * International standard package with Copper baseplate
- * Planar passivated chips
- * Short recovery time
- * Low switching losses
- * Soft recovery behaviour
- * Isolation voltage 3600 V~
- * RoHS compliant

APPLICATIONS

- * Antiparallel diode for high frequency switching devices
- * Free wheeling diode in converters and motor control circuits
- * Inductive heating and melting
- * Uninterruptible power supplies (UPS)
- * Ultrasonic cleaners and welders

ADVANTAGES

- * High reliability circuit operation
- * Low voltage peaks for reduced protection circuits
- * Low noise switching
- * Low losses

