



FRED Rectifiers

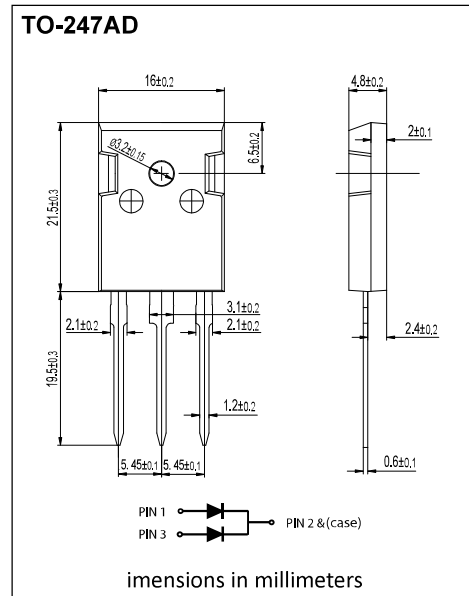
DSEK60S03P

Features

- Planar structure with EPI wafer
- Low VF and soft recovery characteristic
- Low power loss
- For PFC(DCM/CCM) operation
- Lead free in compliance with EU RoHS 2011/65/EU directive

Mechanical Data

- Circuit figure: Common Cathode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: 5.05 grams



MAXIMUM RATINGS(TA=25°C)

RATINGS	SYMBOL	DSEK60S03P	UNIT
Maximum repetitive reverse voltage	VRRM	300	V
Maximum RMS voltage	VRMS	210	V
Maximum DC blocking voltage	VDC	300	V
Maximum average forward current per device per diode	I <sub>AV</sub>	60 30	A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	300	A
Typical thermal resistance per diode(Note 1)	R <sub>θ-JC</sub>	1.5	°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +175	°C
Storage temperature range	T <sub>STG</sub>	-55 to +175	°C

Notes: 1. Thermal resistance from junction to case.



ELECTRICAL CHARACTERISTICS (TA=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Instantaneous forward voltage per diode	VF	IF= 30A TJ=25°C	-	1.10	1.15	V
		IF= 30A TJ=125°C	-	-	1.05	V
Reverse current per diode	IR	VR=300V TJ=25°C	-	-	5	uA
		TJ=125°C	-	-	250	
Reverse recovery time	TRR	IF= 0.5A IR=1.0A IRR=0.25A TJ=25°C	-	35	40	ns

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

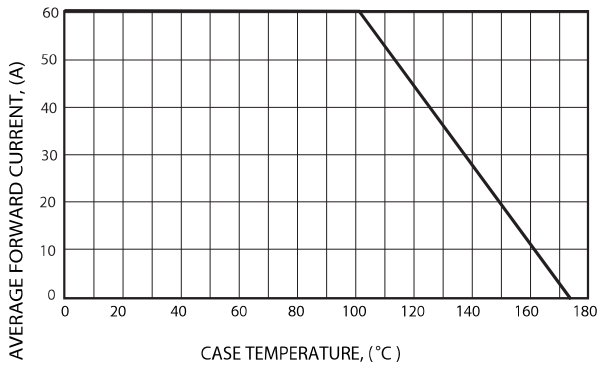


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

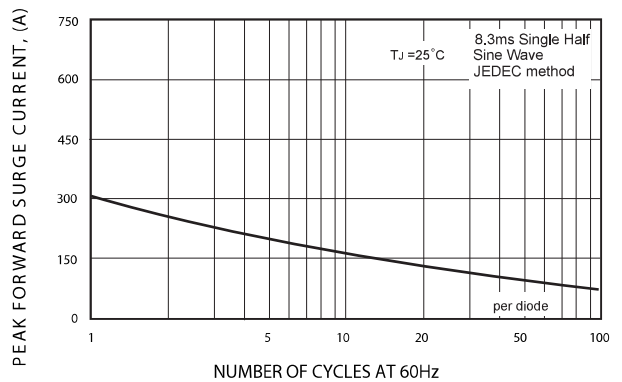


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

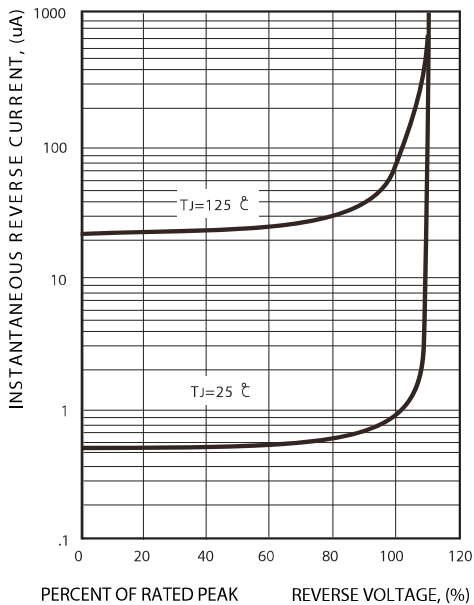
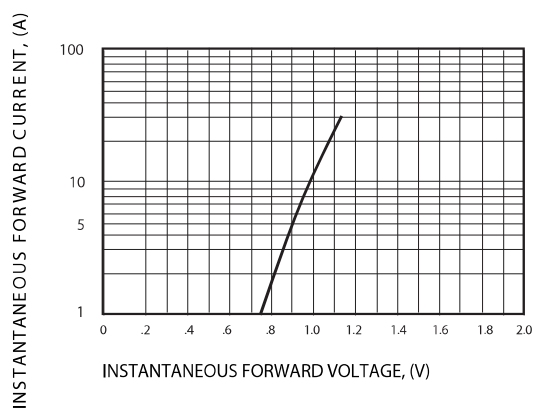


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS





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