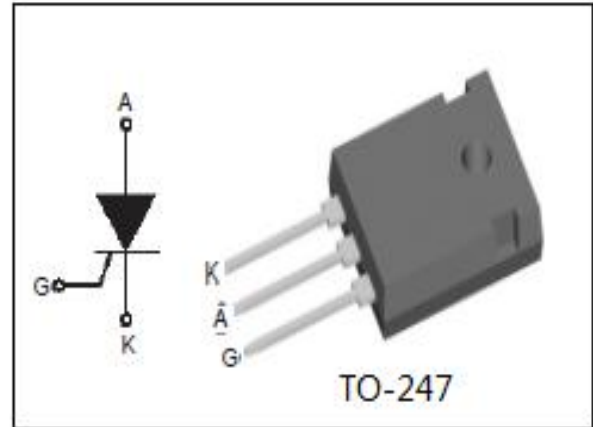


isc Thyristors
SF16JZ51
DESCRIPTION

- With TO-247 packaging
- Long-term stability
- Thyristor for line frequency
- Planar passivated chip
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching applications
- Line rectifying 50/60 Hz


ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	MIN	UNIT
V_{DRM}	Repetitive peak off-state voltage	600	V
V_{RRM}	Repetitive peak reverse voltage	600	V
$I_{\text{T(AV)}}$	Average forward current @ $T_c=79^\circ\text{C}$	16	A
$I_{\text{T(RMS)}}$	RMS on-state current	25	A
I_{TSM}	Surge non-repetitive on-state current (1/2 cycle, sine wave)	50HZ 250 60HZ 275	A
$P_{\text{G(AV)}}$	Average gate power dissipation	0.5	W
T_j	Operating junction temperature	-40~125	$^\circ\text{C}$
T_{stg}	Storage temperature	-40~125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_{\text{RM}}=V_{\text{RRM}}$ $V_{\text{DM}}=V_{\text{DRM}}$ $T_j=25^\circ\text{C}$		0.02	mA
I_{DRM}	Repetitive peak off-state current				
V_{TM}	On-state voltage	$I_{\text{TM}}=50\text{A}$		1.5	V
I_{GT}	Gate-trigger current	$V_{\text{D}}=6\text{V}; R_{\text{L}}=100\Omega$		15	mA
V_{GT}	Gate-trigger voltage	$V_{\text{D}}=6\text{V}; R_{\text{L}}=100\Omega$		2.5	V
$R_{\text{th(j-c)}}$	Thermal resistance	Junction to case		1.5	$^\circ\text{C/W}$

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