

Description

Thyristors are a type of semi—conduct component. They are designed to protect baseband equipment from damaging overvoltage transients. such as modems, telephones, line cards, answering machines, FAX machines, T1/E1, xDSL and more.

Features

- Excellent capability of absorbing transient surge
- Quick response to surge voltage (ns Level)
- Eliminates overvoltage caused by fast rising transients
- Moisture sensitivity level: Level 1
- Fails short circuit when surged in excess of ratings
- Non degenerative

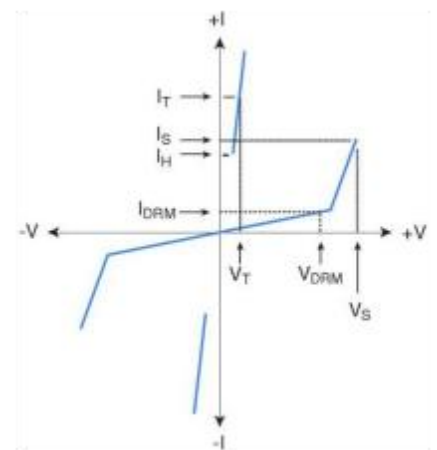


Device Symbol



Typical Applications

Parameter	Definition
V_{DRM}	Peak Off-state Voltage – maximum voltage that can be applied while maintaining off state
V_S	Switching Voltage – maximum voltage prior to switching to on state
V_T	On-state Voltage – maximum voltage measured at rated on-state current
I_{DRM}	Leakage Current – maximum peak off-state current measured at V_{DRM}
I_S	Switching Current – maximum current required to switch to on state
I_T	On-state Current – maximum rated continuous on-state current
I_H	Holding Current – minimum current required to maintain on state
C_o	Off-state Capacitance – typical capacitance measured in off state
I_{PP}	Peak Pulse Current – maximum rated peak impulse current



Thermal Consideration

Parameter	Symbol	Value	Unit
Operating Temperature	T_J	-40 to +125	°C
Storage Temperature	T_{STG}	-40 to +125	°C
Junction to free air thermal resistance	$R_{\theta JA}$	90	W/°C

Summary Electrical Characteristics, $T_a = 25^\circ\text{C}$ (Unless Otherwise Noted)

Parameter Description		$I_{DRM}@V_{DRM}$		$V_S^{①}@I_S$		$V_T@I_T$		I_H	$C_o^{②}$
Unit		μA	V	V	mA	V	A	mA	pF
Type	ENV	max	min	max	max	max	max	min	max
KUUP0080FA	L	5	6	25	800	4	2.2	20	40

L : Lead-free

① V_S is measured at 100KV/s

②Off-state capacitance is measured in $V_{DC}=2V$, $V_{RMS}=1V$, $f=1\text{MHz}$

Surge Ratings

Type	Wave Sharp		VPP
IEC6100-4-5	Voltage	10/700 μs	2000V

Rating & Characteristic Curves

Figure 1- Reflow Soldering

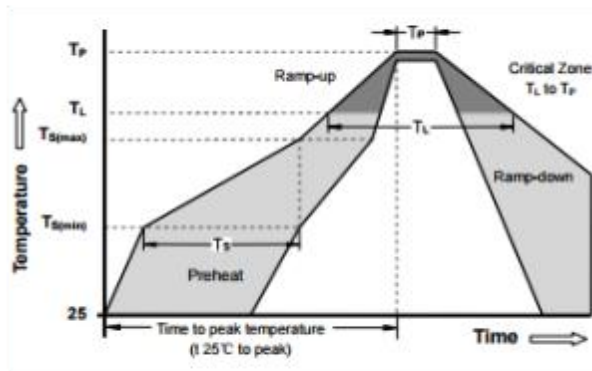


Figure 2- PEAK PULSE CURVE

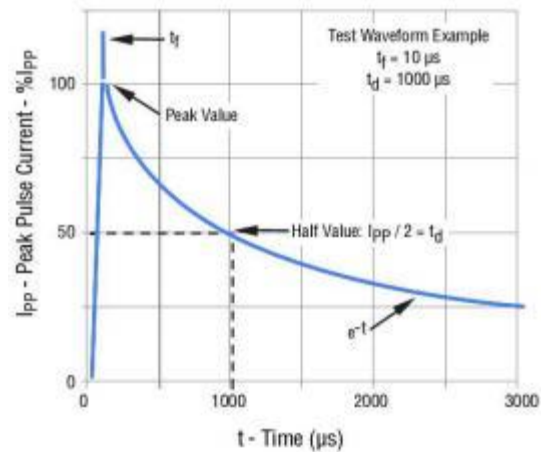


Figure 3-Normalized DC Holding Current versus Case Temperature

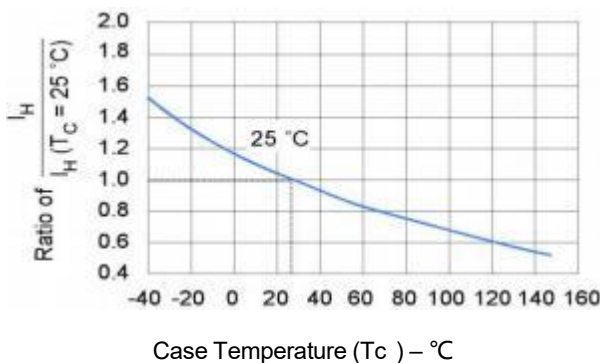


Figure 4-Normalized V_S change versus Junction Temp

