



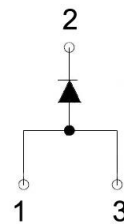
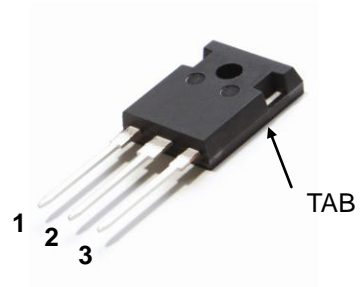
Name: AnR75FRD12

Applications

- Antiparallel diode for switching devices
- Free wheeling diode in converters and motor control circuits
- Inductive heating
- UPS

Features

- Low switching losses
- Soft, fast switching
- Planar passivated chip
- Max. operating junction temperature 150°C



1	2	3	(TAB)
Anode	Cathode	Anode	Cathode

Product Summary

Part Number	V _{RR}	V _F	I _F	Packaging
AnR75FRD12	1200 V	2.5 V	75 A	Tube

Table 1. Absolute Maximum Ratings

	Parameter	Value	Units
V _R	D.C. Reverse voltage	1200	V
V _{RRM}	Repetitive Reverse voltage		
I _F , T _C =25 °C	Forward Current	75	A
I _{FM} , T _C =25 °C	Pulsed Forward Current	150	
P _{tot}	Power dissipation T _C =25 °C	175	W
T _j	Operating Temperature	-55 to +150	°C
T _{stg}	Storage Temperature	-55 to +125	
T _L	Lead Temperature for 10 sec	300	
	Weight	6 (Typical)	g

**Table 2. Thermal resistance**

Symbol	Parameter	Min	Max	Units	Test Conditions
R_{thJC}	Junction-to-Case	–	0.64	°C/W	
R_{thJA}	Junction-to-Ambient	–	40		

Table 3. Electrical Characteristics @ $T_J=25^\circ\text{C}$

Symbol	Parameter	Min.	Typ.	Max.	Units	Test Conditions
V_F	Forward Voltage	–	1.9	2.5	V	$I_F=75\text{ A}$
		–	2.1	3.0		$I_F=75\text{ A}, T_J=125\text{ }^\circ\text{C}$
I_{RR}	Reverse Leakage Current	–	0.01	0.25	mA	$V_R=1200\text{ V}$
		–	0.8	5.0		$V_R=1200\text{ V}, T_J=125\text{ }^\circ\text{C}$

Table 4. Recovery Characteristics

Symbol	Parameter	Min.	Typ.	Max.	Units	Test Conditions
I_{rrm}	Maximum Reverse Recovery Current	–	35	–	A	$I_F=50\text{ A},$ $di_F/dt=0.4\text{ A/ns},$ $T_J=25\text{ }^\circ\text{C}$
t_{rr}	Diode Reverse Recovery Time	–	180	300	ns	
Q_{rr}	Diode Reverse Recovery Charge	–	3.3	–	μC	

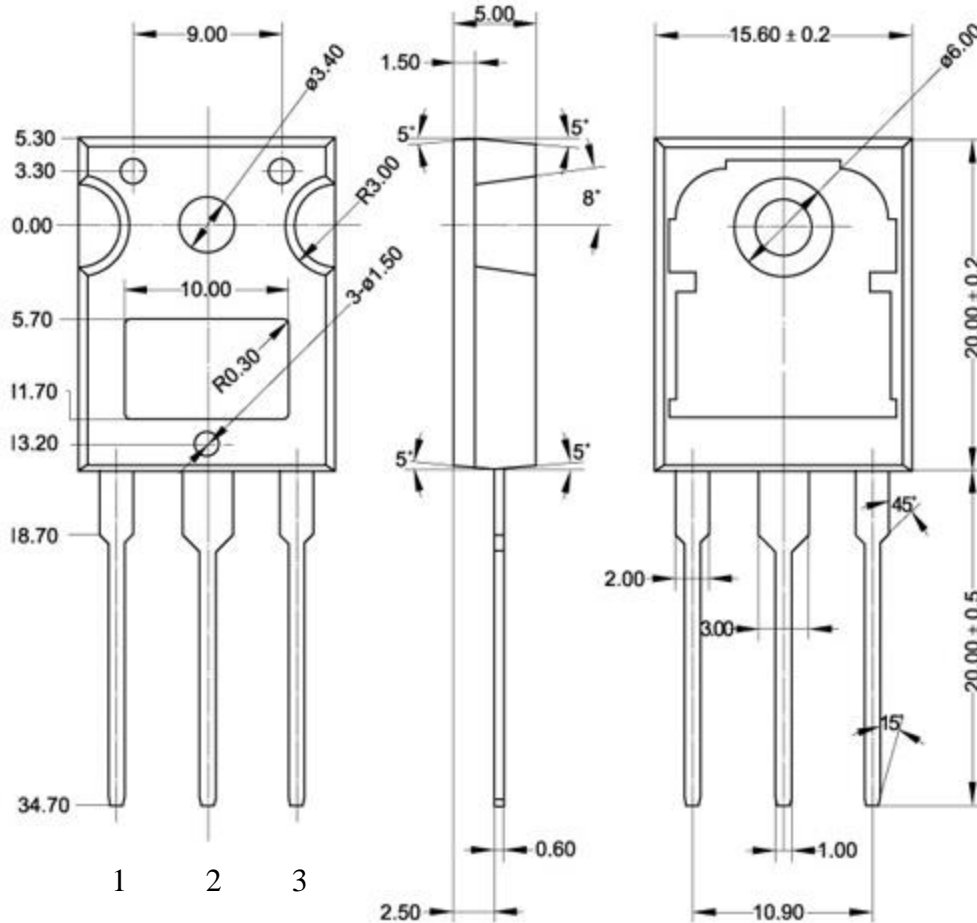
Precious metal content into 1000 pieces:

Gold _____ g;

Silver _____ g.



Case Outline and Dimensions - TO-247



NOTE:

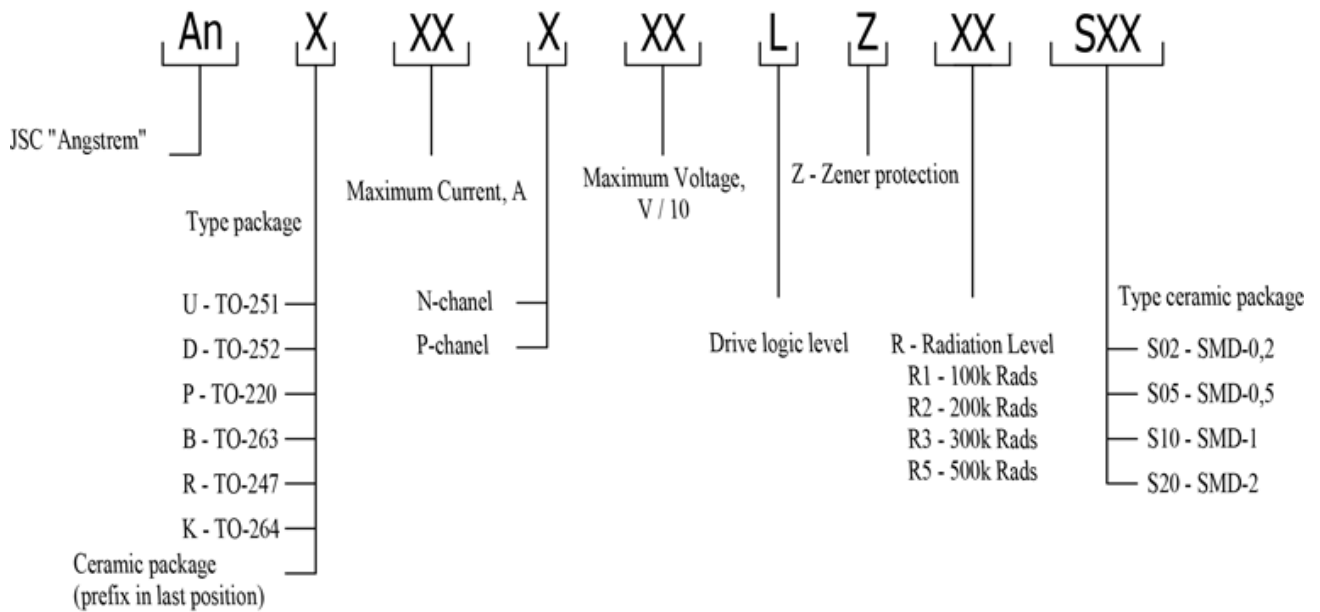
1 Dimensions are shown in millimeters.

PAD ASSIGNMENTS

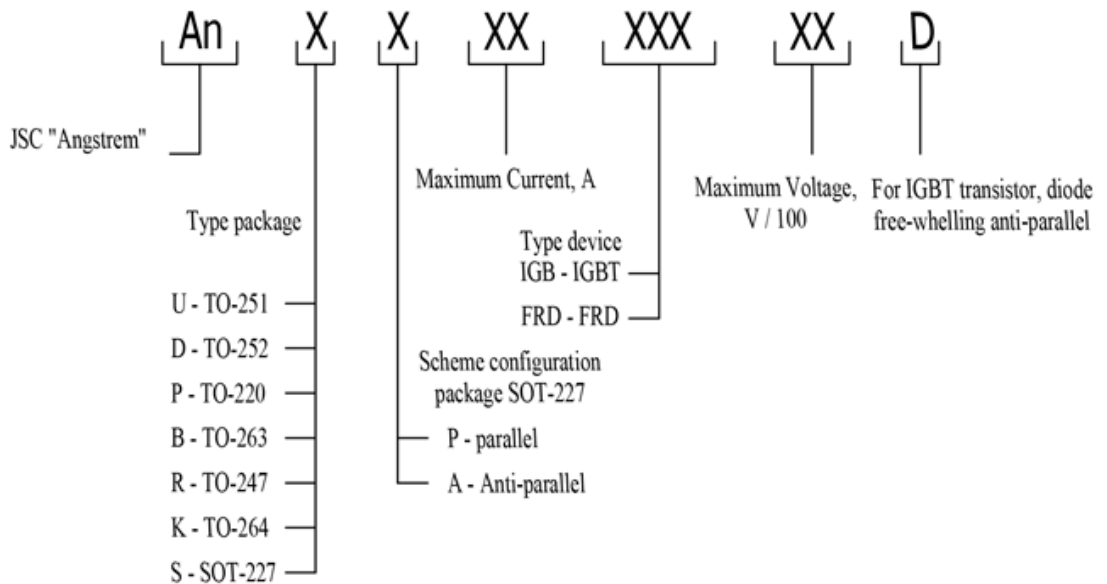
- 1 = ANODE
- 2 = CATHODE
- 3 = ANODE



Description name MOSFET



Description name IGBT & FRD



- Sample:
- AnB7N60 - MOSFET N-channel, 7A, 600V, package TO-263
 - An10N70R1S10 - MOSFET N-channel, 10A, 700V, Radiation level 100k Rads, package SMD-1
 - AnR75IGB12 - IGBT, 75A, 1200V, package TO-247
 - An50FRD17 - FRD, 50A, 1700V, chip
 - AnSP100FRD04 - FRD, 200A, 400V package SOT-227 configuration two diode parallel