

isc Silicon NPN Power Transistor

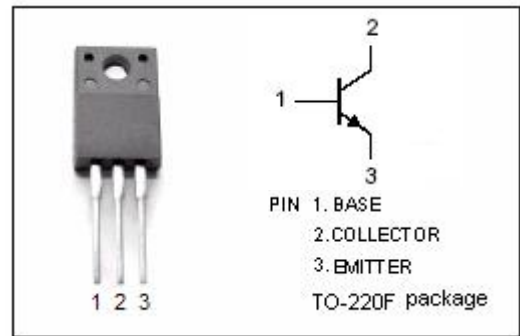
KTD2058

DESCRIPTION

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 60V(\text{Min.})$
- Collector Power Dissipation  
:  $P_C = 25 W @ T_C = 25^\circ C$
- Low Collector Saturation Voltage-  
:  $V_{CE(sat)} = -1.0V(\text{Max}) @ (I_C = -2A, I_B = -0.2A)$
- Complement to Type KTB1366

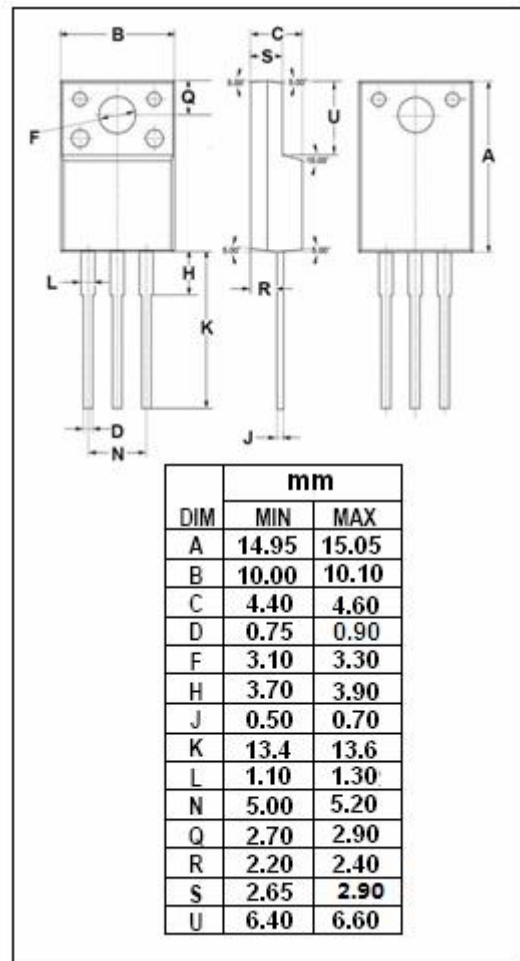
APPLICATIONS

- Designed for low frequency power amplifier applications



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	3	A
$I_B$	Base Current-Continuous	0.5	A
$P_C$	Collector Power Dissipation @ $T_a=25^\circ C$	2	W
	Collector Power Dissipation @ $T_C=25^\circ C$	25	
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



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## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=50\text{mA}; I_B=0$	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.2\text{A}$			1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=0.5\text{A}; V_{CE}=5\text{V}$			1.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=60\text{V}; I_E=0$			100	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=7\text{V}; I_C=0$			0.1	mA
$h_{FE}$	DC Current Gain	$I_C=500\text{mA}; V_{CE}=5\text{V}$	60		300	
$f_T$	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=5\text{V}$		3		MHz
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1.0\text{MHz}$		35		pF

## Switching times

$t_{on}$	Turn-on Time	$I_C=2\text{A}, I_{B1}=-I_{B2}=0.2\text{A}$ $R_L=15\Omega; V_{BB2}=30\text{V}$		0.65		$\mu\text{s}$
$t_{stg}$	Storage Time			1.30		$\mu\text{s}$
$t_f$	Fall Time			0.65		$\mu\text{s}$

◆  $h_{FE}$  Classifications

O	Y	GR
60-120	100-200	150-300